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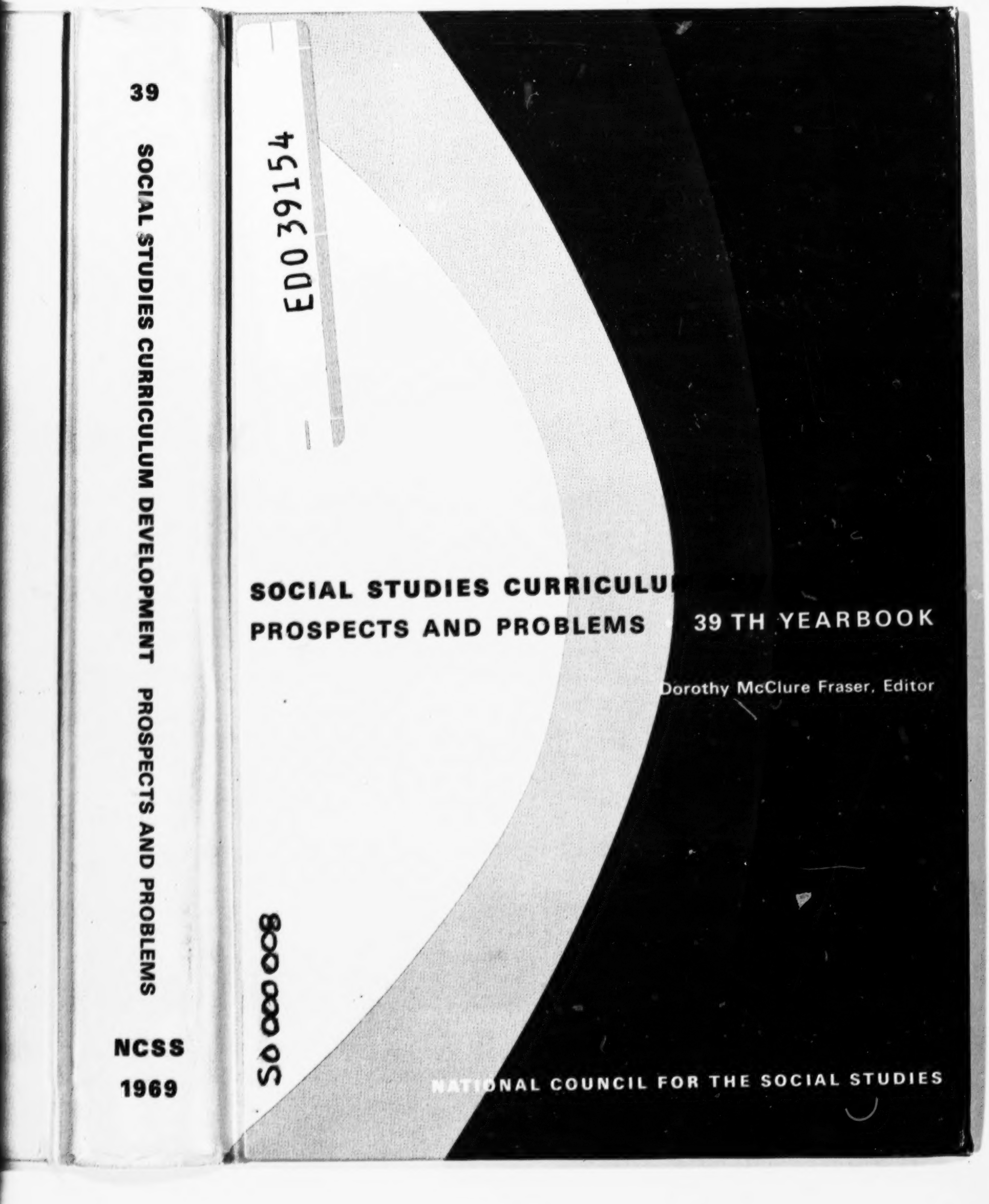
ABSTRACT

This volume contains a comprehensive collection of chapters which have been organized around the critical decision-making areas of curriculum development or reform. The critical areas discussed are: the conceptual structure or framework; curriculum organization (i.e. sequential approach, interdisciplinary approach); behavioral objectives; program content; instructional strategies (i.e. inquiry, discovery, simulation); and, learning materials selection and development. The major emphasis of this book was the overall process of social studies curriculum planning, design, implementation and evaluation, including methodology, techniques, and models. Illustrative materials and curriculum plans from various research and development projects, and, extensive references for each topic area have been included. (SBE)



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SOCIAL STUDIES CURRICULUM DEVELOPMENT PROSPECTS AND PROBLEMS

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PROSPECTS AND PROBLEMS

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Dorothy McClure Fraser, Editor

NATIONAL COUNCIL FOR THE SOCIAL STUDIES

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Prospects and Problems

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SOCIAL STUDIES CURRICULUM DEVELOPMENT:

Prospects and Problems

Edited by Dorothy McClure Fraser

39th Yearbook 1969

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Foreword

Ten years ago American education was just beginning to respond to the advent of the Space Age. Man had ventured into space for the first time. The American public was beginning to ask questions as to why we were not first. Foundations and public funds in vast sums were being made available to implement scientific education. Social studies education was still in the doldrums. The American public had not yet awakened to the fact that the greatest challenge to our generation is our responsibility to meet the crisis in human values and living together in peace in the world of today.

But the critics and frontier thinkers in social studies education were not standing idly. They faced the challenge with all the means and resources available to them. Faced with a program that was designed a half century ago by an awakening rural America, they diagnosed the ailments in social studies education. Briefly they were summarized as the emphasis on memorization of facts, lack of realism, lag with current research techniques and findings, and ethnocentrism.

Today we celebrate the fact that the American flag has been planted on the moon by American astronauts. We are confronted by even more pressing and stressful human problems. But social studies education too has undergone a revolution in these past ten years. One that has been funded by private foundations, federal government, and local resources. One that has produced countless innovations in our thinking and action. So numerous have they been that I doubt if any person is familiar with all of them.

In implementing a social studies program ten years ago in a school system the challenge was not horrendous. The general plan was well delineated. Not so today. The many innovations demand that we consider many aspects in selecting those best for community and our children. Our problem is not so much how to innovate as how to synthesize these diverse ideas into a practical and viable program. Running throughout is an emphasis on the inductive approach. Today the social studies classroom teacher and the curriculum builder must use this approach in their daily work, if they are to give the best for the children in their classrooms. They must examine the new innovations and programs (the basis information or data) and draw from them the basic conclusions (hypothesis, generalization, and constructs) upon which to build. They must be practitioners of the arts in which they guide children.

This yearbook is a much-needed document by those seeking to apply these new findings to the education of children. For the writers of these chapters have followed these same methods in synthesizing for us the innovations and trends of the past ten years. It now becomes our responsibility to use it wisely to let their findings help guide us into better programs for the children of the next decade — to help them become better prepared to face the challenge of living in the 21st century. To the writers and editors who have performed this task the NCSS owes a debt of gratitude. I'm sure they would be first to recognize the limitations of doing this task in a single volume. But it is certainly an excellent handbook to guide us through the labyrinth of the new social studies. If followed it will enable us to remove many of the criticisms of ten years ago. The time has arrived to implement.

But as I close this foreword, it is on a note of sorrow and challenge. As I read this yearbook I am struck by the similarity of many of these recent innovations to those recommended by the Report of the Commission on the Social Studies. Unfortunately World War II consigned the effectiveness of those volumes to the accumulation of dust in libraries.

We had the opportunity to meet a challenge for improvement but the ills in our society prevented it. Do we today have the courage and resourcefulness to overcome the challenges to our society — both human and environmental — to make this better education become a reality? Can we coordinate the efforts of our human and natural scientists to do for mankind an equivalency of the technical achievements of leaving footprints in space?

RONALD O. SMITH, *President*
National Council for the Social Studies

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The National Council for the Social Studies is the Department of Social Studies of the National Education Association of the United States. It is the professional organization of teachers of social studies. It holds a series of meetings each year and publishes materials of significance to those interested in this field. Membership in the National Council carries with it a subscription to the Council's official journal, *Social Education*, the monthly magazine for social studies teachers, and the Yearbook. In addition, the Council publishes bulletins, pamphlets, and other materials of practical use for teachers of the social studies. Membership dues are $12 a year. Applications for membership and orders for the purchase of publications should be made to the Executive Secretary, 1201 Sixteenth Street, N.W., Washington, D.C. 20036.

Introduction

There are from time to time watershed periods in human affairs; this seems to be such a period for America and for the world. Not only are societal changes occurring at an ever accelerating rate, but they are revolutionary in nature and pervade every aspect of the social order, including education. Traditional programs are questioned, experimentation with varied proposals for change is proceeding on a broad front, and new directions are developing. The social studies field, like other curriculum areas, is feeling the full impact of forces for change. Decisions made now are likely to shape the social studies experiences of the next generation of school children.

Many research and development projects in social studies have been conducted in recent years, many are still underway. These projects vary in focus, scope, and apparent philosophic approach. A range of proposals for redesigning social studies programs have been and are being formulated. Materials to implement the diverse proposals are in preparation or, in some cases, are already available. The decisions about social studies curriculum change that will count, however, will not be made in the offices of projects or publishing houses, but in local school systems and ultimately in the minds of social studies teachers who must implement the new programs.

The National Council for the Social Studies, in keeping with its responsibility to the social studies teachers of the nation, and to the students in their classes, has an obligation to facilitate analysis by teachers and curriculum planners of trends, issues, and problems in social studies curriculum reform. The Council conducts a variety of activities to this end. Specific aspects of current developments are discussed in its journal, SOCIAL EDUCATION, and in sessions of its Annual Meeting. The Council has commissioned this yearbook in order to provide a more comprehensive treatment of current efforts to improve social studies programs than can be achieved in its other activities of a short-range nature.

The yearbook committee decided, early in its deliberations, not to add to the literature yet another set of descriptions of specific projects and programs. Instead, this volume is organized around the critical decision-making areas of curriculum reform and illustrative materials from various projects are drawn upon, as appropriate, in the discussion of each area. Thus, it is hoped, the volume may assist local social studies committees and individual teachers in identifying the curriculum decisions they need to make and in bringing to bear on those decisions relevant ideas and materials from the research and development effort.

In the view of the yearbook committee the term, "curriculum decisions," encompasses far more than determinations about what topics should be included in the program of study at various grade levels. Members of the committee recognize the importance of selecting significant content that can be dealt with effectively by learners at various stages of maturity. They are convinced, however, that an effective selection of content can be made only within the context of clearly established purposes and that how a pupil learns has more lasting impact than which specific set of facts he studies. Further, they are convinced that ultimately the curriculum "reform" which is real and effective is that which is developed by teachers, as they make instructional decisions in their day-by-day work with learners. In short, the committee rejects the notion that a content-specific social studies curriculum which is laid out in guides and presented through "teacher-proof" learning materials can serve the need of young people to gain insights concerning their society and their own roles in their social world.

These convictions of the authors of this yearbook are reflected in its various chapters. Indeed, the reader will find some of the basic ideas restated in several places in the book. The authors considered whether such repetition was permissable and concluded that it was both inevitable and desirable. Some duplication was judged to be inevitable because each author wishes to be sure that readers understand his frame of reference. Restatement of major ideas in the various Chapters was deemed desirable because of the manner in which yearbooks tend to be used; i.e., many readers go directly to the section they need at the moment, rather than reading the volume sequentially from cover to cover, so it is important that the context in which the particular chapter is written should be clear.

The preparation of this Thirty-Ninth Yearbook of the National Council for the Social Studies has been a truly cooperative enterprise. So many leaders in social studies education contributed ideas and advice at various stages in planning for and developing the volume that it is impossible to name them all here, but the editor wishes to acknowledge this debt to professional colleagues. Special thanks go to each of the chapter authors, who not only gave freely of their time and energy in preparing their own manuscripts but, in addition served as consultants on the total volume. Valuable suggestions were also made by Jack Allen, Ruth Ellsworth, Shirley Engle, Leslie Wood, and Stanley Wronski who, as members of the Publications Committee from 1966 to 1969, reviewed the project at its various stages. Finally, the editor expresses appreciation to Merrill F. Hartshorn and the other members of the headquarters staff who provided understanding, assistance, and support throughout the lengthy process of preparing and producing this yearbook.

DOROTHY MCCLURE FRASER

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CHAPTER ONE

Dorothy McClure Fraser

The Changing Scene in Social Studies

Whether or not the 60's have seen a "revolution" in the social studies, as some claim, can be debated. Perhaps the changes that have come and are continuing to develop are more accurately described as evolutionary than as revolutionary. There can be no question, however, that increasing numbers of children and youth are pursuing social studies programs which offer striking contrasts to typical programs of the 50's and early 60's. It seems clear that currently emerging trends will continue to gain momentum so that many pupils of the 70's and 80's will study their society through vastly different experiences, different both in procedures and in substance, from those their older brothers and sisters encountered in an earlier decade.

This chapter provides a background for considering the critical decisions about social studies curriculum development that must be made in the decade ahead. It presents a brief analysis of the setting for decision-making and of forces that have major impact for revision of traditional social studies programs. It identifies trends that seem to be emerging after almost a decade of reexamination of those programs. Finally, it suggests a number of continuing issues and problems that teachers and other curriculum makers must deal with, as they seek to improve the social studies learning of children and youth.

THE SETTING FOR DECISIONS ABOUT SOCIAL STUDIES PROGRAMS

It has become traditional, with the development of analytical approaches to curriculum design, to point out that three factors must be consulted in rational curriculum planning in social studies, as in other aspects of the school program. The characteristics and needs of the society which the school serves, and in which the learners live, influence the selection of priorities and emphases for the instructional program. The substantive "knowledge" that is available to be taught, which for the social studies curriculum consists of the principles, workways, and specific content of the social science disciplines, is the second factor to be considered. Finally, what is known (or is believed to be true) about the learners' abilities, needs, life goals, and learning processes influences the program that is offered.

These three factors have had impact on instructional programs, implicitly or explicitly, wherever the education of youth has been institutionalized in some type of formal schooling. They influenced the introduction of social studies subjects in American schools during the nineteenth century and the development of broader social studies programs in the twentieth. However, the response of the social studies curriculum to societal change, to the expansion of the social sciences, and to a developing body of learning theory has been slow, and frequently only partial. During the past generation, changes in American society, in the social science disciplines, and in conceptions of the educative process have accelerated. Decisions about social studies programs for the last third of the twentieth century must be made in a setting that is drastically different from that in which today's conventional social studies programs were formulated.

The Emerging Society of the Late Twentieth Century

For centuries, efforts to predict the future have fascinated mankind. Ancient priests read the stars, consulted oracles, or cast omens to get clues about coming events. To the same end, modern fortune tellers consult their crystal balls or study astrological charts. At a different and more scientific level, numerous studies by physical and social scientists have been and are being made in an effort to identify major trends that seem likely to shape the society in which Americans will live in 1980, 2000, or even beyond. Most of these studies are team efforts, with working groups that include specialists from various disciplines.

The "futurists" themselves are quick to warn that they are engaging in social prophesy. They point out that social prophesy is not scientific prediction because unforeseeable factors may operate to modify and even reverse currently discernable societal trends. The prediction by demographers in the 1930's of a long-range decline in the rate of population growth in the United States is frequently cited as a case in point. The fact that the twentieth century thus far has been a period of more rapid, and more rapidly accelerating change than any previous period in the world's history adds to the hazards of social prophesy. It also lends urgency to efforts to project the probable development of current trends in order to have a basis for shaping them into desirable directions. As the following summary of some of the major predictions and speculations of the futurists will show, the very act of identifying probable developments serves to highlight areas of choice for mankind. Indeed, the purpose of futurology is to anticipate major problems that seem likely to develop in the future and consider alternative ways of handling them, to the end that society can choose courses of action deliberately instead of having to respond to unforeseen crises on a piecemeal, *ad hoc* basis.

In their efforts to delineate the probable shape of tomorrow's society, various futurists have asked many of the same questions. How many people will there be? Where and how will they live? How will technological developments affect their lives? What demands will be made on political and social institutions and how may these institutions be modified to meet the demands? Although the specific answers vary, there is notable consensus about the probable directions of change and the nature of alternatives that may be available to mankind in the decades ahead.[1]

Science and Technology. Technological innovation will continue to develop at an accelerating rate, it is generally agreed. Man's control over his physical environment will be extended as science and technology transform his use of presently available resources and lead to the tapping of such new sources of minerals, food, and living space as the oceans of the world. Weather modification, with enormous implications for environmental control, is seen as a distinct possibility. A continuing revolution in time and space relationships will almost certainly create increasing interdependence within the U.S.A. and among the peoples of the world. Advances in biomedical science promise significant extensions of the human life span. It seems likely that computer systems, with enormous capacities for information storage and retrieval, will not only revolutionize recordkeeping in business and government, but will also facilitate the use of such tools as model building, simulation, and operations research in the process of decision-making. Predictions at a less basic level include robot maids for every household, painless figure control accomplished by electronic bubble massage, and individual flying platforms for local transportation.

Views about the impact of technological innovation range from highly optimistic pictures of a life of ease and even luxury for all, with humanistic values emphasized, to threatening portrayals of a society in which men are enslaved and dehumanized by a machine culture. Responsible futurists assume neither stance. Rather they point out that advances in technology create new possibilities for human endeavors, thus widening the range of choices that are available to mankind. At the same time, technological innovation alters the "mix" of options that are open to a society; for example, when a nation moves from an agricultural to an industrial economy some options are closed out while new ones are created.[2]

Population. World population trends will continue to zoom upward. While estimates for the year 2000 vary from five to seven billions, an increase of 50 to more than 100 per cent over the 1965 figure, the direction is clear. About 40 per cent of the world's people probably will be living in highly developed economies, another 50 per cent in societies that are partially industrialized and continuing to move toward full industrialization, and only 10 per cent in preindustrial economies. Some scholars predict, with C. P. Snow,[3] a collision between rising population and available food that will result in widespread starvation in the poorer countries unless radical population control is combined with an enormous upsurge in food production.

Population trends in the United States will follow the same upward direction. By 1980, according to projections of the Bureau of Census, the total number of inhabitants will be about 241 million, an increase of 24.4 per cent over the figure for 1965. If recent birth rates remain relatively constant, the population of the United States may reach nearly 350 million by the year 2000. Even if they should fall off somewhat, as statistics for the 1960's suggest may occur, the effects of the high birth rates of the post-World War II years will continue to be felt in rising population. The age structure of the population will continue to shift toward a younger "average age," with an increase by 1980 of about 55 per cent in the 20 to 35-year-old age group. With regard to racial composition, the increase in the proportion of non-whites in the total U. S. population that has been apparent in recent decades will continue, it is predicted, until by 1980 this sector will approach 13 per cent as compared with 10.2 in 1930 and 11.4 per cent in 1960.[4]

By the year 2000, in the developed nations between 80 and 90 per cent of the people will dwell in urban areas, many of them in megalopolises. In the United States, nearly half the population will be concentrated in the three regions that are already emerging as megalopolises: along the northeastern coast, around the Great Lakes, and in southern California. Problems of urban living that have long existed, such as noise, inadequate sanitation, air pollution, crowding and lack of privacy, will be intensified unless steps are taken to alleviate such conditions.

Postindustrial Society. By 2000, it is predicted, the most highly developed economies will have moved beyond the industrialized stage into a "postindustrial" level. In these societies, providing services will outweigh primary occupations (as mining, fishing, farming) and manufacturing activities in the total economy. This trend is already apparent in the United States, though not fully developed as yet. By the turn of the century, according to one analysis, the nations of the world will be divided into the following economic groupings:[5]

Visibly Postindustrial: U.S.A., Japan, Canada, Scandinavia, Switzerland, France, West Germany, Benelux, Great Britiain.

Early Postindustrial: Italy, Soviet Union, East Germany, Poland, Czechoslovakia, Israel, Australia, New Zealand.

Advanced Industrial with Mass Consumption: Spain, Portugal, Austria, Yugoslavia, Albania, Greece, Bulgaria, Hungary, Ireland, Turkey, Mexico, Argentina, Colombia, Venezuela, Chile, Taiwan, South Korea, Hong Kong, Malaysia.

Mature Industrial: One-fourth of Latin America, one-third of the Arab World, one-half of East and Southeast Asia.

Large and Partially Industrialized: Brazil, Pakistan, China, India, Indonesia, Nigeria.

Preindustrial or Small and Partially Industrialized: the rest of Africa, two-thirds of the Arab World, the rest of Asia and Latin America.

Postindustrial economies, according to Kahn and Weiner, will have per capita incomes about 50 times as great as those in preindustrial societies. Thus the gap in living standards between the postindustrial economies and those at the preindustrial level will have widened enormously. Even in the poorer countries, however, higher standards of living than presently exist may be anticipated.

In the United States and other postindustrial societies the affluence of the economy will probably result in reduced emphasis on efficiency, along with a guaranteed minimum income and basic welfare services for all sectors of the population. Values will shift in a postindustrial world. *"Work oriented, achievement oriented, advancement-oriented values and 'national interest' values erode, and sensate, secular, humanistic . . . criteria become central, as do the intellectual institutions."*[6] The major sources of innovation and change will no longer be found in business firms and industrial corporations, but rather in research organizations and universities. For the individual, continuing education throughout the years of maturity will become the rule as periodic retraining for careers (perhaps four in a lifetime) becomes essential and as increased leisure opens new opportunities for self-fulfillment.

Governmental Institutions. The rapid expansion of functions performed by local, state, and federal governments in the United States in recent decades represents a trend that is common among the industrialized nations of the world. It is a trend that has its roots far back in our national history, even to the establishment of the Republic. It is a trend that seems certain to accelerate. As more people live more closely together in the increasingly complex technological and urbanized society of the late twentieth century, social issues will become even more intricately interrelated than they are today. Already the impact of conflict or crisis in one area is felt quickly throughout the society. Government, representing all the people, increasingly is called upon to mediate, regulate, or promote the search for solutions to social problems. Such demands, it is anticipated, will become stronger and will call for governmental action in areas traditionally left to the private sector, as ". . . individuals and groups, more conscious of these problems as problems, demand action instead of quietly accepting their fate."[7]

The growth in governmental size, expenditures, and scope of activities has been and will continue to be at all levels, not merely in the federal realm as many critics of "big government" have assumed. Indeed, the major growth since World War II has been at the state and local levels. For example, the number of federal employees has remained relatively stable in the past two decades while state and local employment rolls have doubled. When the increasing expenditures at the state-local level are compared with those of the federal government, the relative shares of the total remain stable. Of government moneys spent for domestic purposes, state-local expenditures (including funds from federal grants-in-aid) today constitute two-thirds of the total.[8]

Several developments deriving from the expanding scope of governmental activities that have been apparent for some time can be expected to intensify. One is the tendency to "nationalize" public policies, a result of the growth of a national society in which regional and local differences are minimized. Setting broad directions at the federal level in such areas as economic development, social benefits for all sectors of the population, and pollution control is increasingly accepted. Some futurists foresee the federal government serving more and more in the role of catalyst, through providing funds and consultation, to stimulate changes in both the public and private sectors of society. Actual operations, however, will be carried out largely at the state and local levels.

A second development, closely related to the nationalization of public policy, stresses intergovernmental cooperation through regional commissions, interstate compacts, and grant-in-aid programs that are jointly developed by local, state, and federal units. Such activity has moved rapidly in recent decades. Anti-poverty projects and air pollution control programs are cases in point. Continuing experimentation with variations on existing forms of intergovernmental cooperation and with new approaches to sharing among the various levels of government seems inevitable.

A third development involves an increasing role in governmental activities for administrative agencies, which carry out assigned functions within the framework of policies and regulation set by legislative bodies. The quality of governmental services can be improved by this development if administrative decision-making is based on expert knowledge and if adequate checks on the agencies' discretionary powers are evolved.

The concept of governmental "pluralism," in which private corporations or associations are assigned public functions that might have been carried out by governmental agencies, represents a fourth development with which further experimentation may be anticipated. Medical and legal associations have long exercised such public functions as setting standards for admission to the respective professions and policing the professional activities of their members. The federal government's use of private industries to operate Job Corps centers is an example of a different type. Current proposals to assign private corporations major responsibilities in urban redevelopment programs and speculation about the feasibility of local communities contracting out such public services as street cleaning and even the operation of the schools are further indications of directions in which this development might move.[9]

Implicit in all the discussions of the probable expansion of governmental functions is the question that is already recognized as critical: In a world where government touches the individual's life at every point and yet seems increasingly remote so far as his ability to influence policy decision is concerned, how can the ideal of participatory democracy be realized?

Perhaps a partial answer may be found in the already apparent trend toward increased responsibility of state and local units for implementing programs, such as medicare or air pollution control that have been adopted as national policy through federal legislation. State-local activities might be developed in such a manner that they would help to shape the development of, as well as to carry out, such policies and programs. Citizens, as distinguished from full-time public officeholders, could be called on to participate in the work of local associations, commissions, and committees to which public or semi-public functions might be assigned. If the concept of pluralism were widely applied, the allocation of varied public functions to non-governmental associations, corporations, and other organizations would result in considerable decentralization of government activities and involve a wide sector of the citizenry in public affairs.

It has also been pointed out that, if desired, modern technology could be employed to provide a high degree of popular participation in the formulation of public policies. For example, one scientist has outlined a plan for installing simple auxiliary equipment for telephones that would convert each private and public phone into a "voting station," to which an appropriate number of registered voters could be assigned. Issues could be submitted to the electorate over radio and television broadcasting systems at frequent intervals, rather than waiting for a biennial or quadrennial election. Computers could handle the recording of votes. In this way, "instant referendums" could be taken during the period when a policy was being determined. Calling on citizens to share directly in public decisions could be expected to stimulate their interest in and their efforts to become informed about societal problems, and to encourage them to assume their civic responsibilities.[10]

While such a proposal may have space-fiction connotations to many readers, it serves to demonstrate that technology indeed widens the range of available options, in the political realm as in other aspects of human life, and that mankind's future need not be shaped in Orwellian terms.

Some Critical Areas of Conflict and Choice.[11] Implicit throughout the foregoing discussion is the idea that the emerging society of the future presents alternatives from among which choices can be made. There is no suggestion that the choice-making will be simple, nor that it can be achieved without conflict. Neither can it be assumed that the decision areas which seem critical today will be the most urgent in another decade or two. As society changes, so will its problems. Yet it is possible to identify some basic points that seem likely to be at issue in the foreseeable future.

INTERNATIONAL RELATIONS. It seems probable that the nation-state will remain the basic political unit in the year 2000, although nationalism as it has been manifested in recent centuries is likely to be modified and progress may be made toward some form of world federalism. The quality of life will be enormously affected by the nature of relations among the nations of the world, if this assumption concerning the persistence of the nation-state proves to be valid. The technology that could create a world-wide conflagration is in existence, now. Will machinery for resolving conflicts among nations be developed and used so that destructive wars will be avoided? Will cooperative international scientific efforts be expanded, with nations working together to explore the oceans, the atmosphere around the earth, and space beyond? These are some areas of choice in the international realm.

AFFLUENCE AND POVERTY. Is it inevitable that the gap in living standards between rich and poor nations should grow wider, as some futurists predict will occur? Is it inevitable that the rich nations will exist as islands in a sea of famine and starvation? Technical knowledge is currently available that, if applied, could facilitate population control and bring spectacular progress in the health of the people and in the economies of the less developed nations. Will the huge resources that would be required to do so be made available by the affluent nations? Will effective procedures for hastening development in the poor nations be invented? Within the United States, too, the contradiction of poverty in the midst of plenty seems likely to continue. Will the affluent sectors of American society choose to invest the resources that would be required to break the poverty cycle in which a minority of the people are trapped? Can effective social and political machinery be invented to achieve the elimination of poverty?

HUMAN RIGHTS. The concept of the dignity and responsibility of the individual has long been cited as basic to the democratic ideal, although in practice it has been denied too frequently. Racial, ethnic, religious, and socio-economic class conflicts have contributed to, if not actually caused, this denial. Will an open society, in which prejudice and discrimination are replaced by mutual respect and truly equal opportunities, be evolved in the United States? Will racial, ethnic, and religious hostilities among the peoples of the world be ameliorated or even eliminated? Or will they continue to plague efforts at constructive, cooperative action among the nations of the earth?

DOMESTIC GOVERNMENTS. There is little doubt that the expansion of governmental functions into areas once reserved to the private sector will continue at an accelerating rate in the United States, as in other nations. The central issue is whether government will be more or less democratic, more or less responsive to the conditions and needs of the developing society. There are related questions. To what extent will flexible governmental structures and agencies be invented to provide for the sharing of political power among the masses of people and to enable the individual to participate effectively in the decision-making process? Will communication media become instruments of mind control used to impose the will of a self-appointed governing elite on the masses of people? Or will these media be used to promote an informed, participating citizenry? Will public policies be based on informed analysis of long-range consequences? Or will governmental decisions be dominated by efforts to find *ad hoc* solutions to unanticipated crises, solutions which may only lead to further and more desperate crises?

THE HUMAN CONDITION. What will life be like for the individual U.S. citizen in the affluent, postindustrial society that is predicted, a society in which the individual's needs for material goods and services are generally satisfied, his paid-employment year is drastically shortened, and his off-the-job time is enormously expanded? Will he develop, through formal schooling and informal self-education, the capacity for utilizing his non-working time in humanistic, creative pursuits and socially constructive activities that will enhance his "human-ness?" Or will he live out his days in boredom and alienation from his fellow man, perhaps resorting to drugs and antisocial activities in his efforts to seek self-fulfillment in a culture dominated by a standardized, materialistic mediocrity? In short, will the conditions of daily living be such as to liberate or denigrate the human spirit?

Some Implications for Social Studies Programs. The efforts of scholars to describe the probable shape of tomorrow's world and to identify major areas of conflict and choice in the society of the future suggest some general priorities for social studies programs.

Since the future grows out of the present, studies that illuminate basic societal conditions, trends, and problems should be emphasized in the selection of content. The significance of today's developing trends and problems for the emerging world of the future should be explored in such a manner as to highlight probable decision areas for the next generation and to provide experiences in the processes of rational decision-making. Particular attention should be given to helping pupils develop tools of inquiry and the will to apply these tools in a continuing examination of their changing social world.

Choices between alternatives depend in part, perhaps even largely, on values that are held by the chooser. Social studies programs therefore should provide for the exploration of value conflicts in American society and of the consequences of actions that follow from different value positions. Young people's work in social studies should be conducted so as to enable them to clarify their own beliefs and develop a consistent value system. This is essential to help them know who they are, as individuals, as well as to enable them to think clearly about society's problems and their part in dealing with these problems.

Changing Conceptions of the Learner and His Learning Processes

As a result of systematic efforts to study the characteristics of learners at various stages of maturation and to discover how people learn, a substantial body of theory about the teaching-learning process has accumulated since the turn of the century. This is not to suggest that the theorists have arrived at definitive explanations of human learning. Indeed, basic disagreements exist among the various schools of learning theory. Yet, in each generation, some general principles of learning have been accepted as a basis for planning instruction. As experimentation and research have proceeded in the fields of human development and educational psychology, modifications of these general principles have emerged to affect the design of school curriculums and of instructional practices. Current proposals for revision of social studies programs reflect, to a greater or lesser extent in individual cases, recent emphases and interpretations about the psychological foundations of education.

Readiness for Social Studies Learning. A generation ago it was generally accepted that readiness for learning was closely tied to biological maturation and that it was useless to introduce many social studies concepts and skills until particular stages of maturation had been achieved. For example, it was believed that children could not understand concepts of time and chronology until the later childhood years and that instruction in this area should be delayed until the junior high school years. Systematic teaching of geographic concepts was begun earlier, in grade 4. The expanding community plan was used as a framework for scope and sequence in the elementary grades, on the theory that children learned most efficiently by beginning with study of their immediate environment (the home and school) and moving out into the neighborhood, community, state, nation, and world.

More recently the validity of earlier theories about readiness for social studies learning and the utility of the expanding environment scheme for organizing the elementary program have been discounted. Readiness for learning is now seen to be closely related to the individual's background of experience, as well as being influenced by his maturational stage. Numerous investigations of the social studies interests and knowledge of children have indicated that the traditional elementary school program, especially in the primary grades, was geared to a level of learning that many children had achieved before the instruction began. The evidence continues to mount.[12] Similarly, studies of the political socialization of children and youth have indicated a much earlier awareness of political leaders and governmental activities than previously had been thought to exist.[13]

There is no doubt that the experience background of many children and youth for social studies learning today is richer than in previous generations. Television viewing and travel, now common actvities for young people, have made the world enormously more visible to children as well as to adults and have brought exposure at an early age to considerable information about people, places, and events in distant parts of the nation and the earth. The child's "real world" may be said to include such diverse elements as space flights, as well as trips to the neighborhood store, and a feeling of acquaintance with the President and other national figures, as well as with his teacher and other persons who are physically near at hand. This situation suggests that elementary social studies programs need a deeper, more varied content if they are to challenge the interest of today's children.

Revised conceptions of readiness also stress the possibility of deliberately providing experiences to develop a background for understanding topics or problems that are to be introduced, instead of waiting for the learner to achieve readiness on his own. Further, the notion of a general readiness is rejected in favor of the idea that readiness is specific to the task at hand and that appropriate planning to build readiness for particular learning is important at all stages of maturation. Thus, the secondary school teacher, as well as the teacher of young children, should identify concepts and skills that learners will need to use in attacking a new problem and provide whatever experiences are required to give students an adequate grasp of these tools.[14]

Learning Styles. Individual differences in learning have long been recognized and much discussed by educators. Too frequently, the tendency has been to conceive of such differences in global terms, on the basis of standard tests of intelligence, so that students are labeled as slow or average or rapid learners. Efforts have been made to provide for individual differences by establishing presumably homogeneous class groups and by setting up "general," "standard," and "advanced" curriculum tracks or streams. In efforts to adjust instruction for various groups, particular attention has been given to the rate at which material is presented and the level of abstraction at which it is anticipated students can perform. In spite of the widespread practice of so-called homogeneous grouping, there is evidence that such grouping does not provide for individual differences, but rather provides the teacher with a false sense of having cared for such differences in learning. There is also reason to suspect that homogeneous grouping may generate self-fulfilling prophecies of failure for pupils labeled as "slow" and create expectations that inhibit effective development of the potential of students assigned to "standard" groups.

Another dimension of individual differences that has received increasing attention is that of "learning styles." Variations in such factors as personality structure, visual and auditory perception, mechanical facility, skill in handling verbal symbols, modes of perceiving and organizing data, and tendencies to convergent or divergent patterns of thinking, all closely interrelated, are held to result in differences in the approaches to learning that are most effective from one individual to another.

Some examples are: Some children are "loners," gaining insights easily through independent study, while others seem to make progress more rapidly when they have much interaction with others who are working with the problem at hand. Some profit from rather highly structured learning situations, others do well when permitted or even required to develop much of the structure for themselves. Some gain understanding easily through the conventional printed page, others may profit more from programmed materials, and still others may learn more readily through pictures and other graphic materials.

Differences in learning styles, then, are more than differences in rate of learning or differences in "native intelligence." Providing for these variations in students' ways of learning requires that a range of types of materials and activities be utilized at every stage in the social studies program. The fact that much remains to be discovered about what approaches are most effective for students with particular characteristics only increases the importance of offering such a range of alternatives to all pupils. Bloom, reporting on an experimental program aimed at "learning for mastery" by all students has commented: *"We suspect that no specific learning material or process is indispensable. The presence of a great variety of instructional materials and procedures and specific suggestions as to which ones the student might use help the student to* *recognize that if he cannot learn one way, alternatives are available to him.*"[15]

Conceptual Structures. A major emphasis in recent curriculum reform projects in social studies, as well as in other curriculum areas, has been the effort to establish ideational frameworks, or conceptual structures, as organizing schemes for the school program. Persuasive arguments are given for utilizing this approach.

Learning within an organized structure of ideas is efficient. Specific facts become meaningful when their relationship to concepts or generalizations are understood. Interest and motivation for further study is encouraged by such meaningful learning. Conclusions and generalizations developed from facts that were studied in an organized context are retained longer and, if forgotten, are more easily reconstructed. Even specific information is retained longer if it was originally learned in a meaningful framework. If the ideational framework is built from significant concepts, generalizations, and principles, these become tools for investigating, organizing information, and thinking about problems and issues that may be encountered later. Transfer of learning, the appropriate application of these tools in new situations, seems likely to be enhanced. If a conceptual structure (or structures) for the program can be agreed upon, it will provide criteria for the selection of content, although it is recognized that any major concept or generalization can be developed through a range of topics.

While there is general acceptance today of the utility of conceptual structures as a basis for designing improved social studies curriculums, efforts to identify such structures have moved in varied directions. Some of the resulting proposals are described specifically in Chapter 2. In general, the efforts fall into two categories: those based on analysis of the social sciences as separate disciplines and those in which an interdisciplinary approach was employed. In either case, the resulting list of concepts and generalizations usually include attention to the methods or workways of the social science disciplines. Most of the proposed structures also include value concepts.

Efforts to implement a conceptual approach to social studies curriculum design and instruction have been handicapped by the lack of agreement on what constitutes the structure (or structures) of knowledge and on how the elements in a conceptual structure can be taught effectively. Tanck's analytic discussion in chapter 4, of a "model of knowledge" and of strategies for teaching the elements of the model, attacks this problem.

Some Implications for Social Studies Programs. The foregoing comment on current views of readiness, learning styles, and conceptual structures includes attention to some of the implications of these views for planning the social studies curriculum. The changing conceptions of the learner and his learning processes also have significant implications about how the scope and sequence of the program should be established and about how content should be selected.

In traditional social studies programs, scope and sequence were determined largely by allocating topics and courses to particular school years. The result has been characterized as a "content-specific" curriculum. Efforts to utilize conceptual structures as the basis of program design demand that the stranglehold of traditional content allocations be broken. Instead of proceeding by assigning a predetermined (set) content to each school year, scope would be defined in terms of the concepts and generalizations that are selected to constitute the conceptual framework for the total program; sequence would be provided by spiral development of these concepts and generalizations.

This plan calls for major concepts to be introduced early in the child's schooling, at a simple level and through experiences appropriate to his stage of maturation. In succeeding years, the concepts are to be treated *with increasing depth and through different* content for each exposure. Skills and values, as integral parts of the conceptual framework, are to be treated in the same spiral fashion.

The role of content is transformed in this approach to establishing scope and sequence. Content becomes a vehicle for developing process goals, such as the learner's ability to engage in rational decision-making. The fact that content is a vehicle rather than an end in itself does not suggest that it makes no difference what issues, topics, or subjects are selected for study. A vehicle should be chosen in terms of its effectiveness for the purposes for which it will be used. For example, automobiles, buses, railroads, ships, and airplanes are all part of our transportation system; the traveler selects the vehicle he will use according to its suitability for his purpose. In a program that uses a conceptual approach in establishing scope and sequence, the main criterion for choice of content will be: Will study of this problem, topic, or subject help the student increase his command of one of the basic concepts, generalizations, or processes that have been chosen for emphasis at this grade level? The significance of this criterion and other aspects of the role of content in a conceptually oriented program are discussed in more detail in chapter 3.

The Changing Social Sciences

It has become a truism to note that the social sciences, like other disciplines, are changing rapidly as the "knowledge revolution" accelerates. Like other truisms, this one is often accepted with little effort to analyze its meaning and significance.

A View of the Disciplines. Each of the social sciences has a body of data (content) on which its practitioners draw. Within each social science, basic concepts and generalizations, broad principles, and overarching theories have been developed as organizing structures for the field. Each discipline has its particular approaches, tools, techniques, and methods for discovering and ordering data; these constitute the workways or methodology of the field.

The content, structures, and workways of a discipline interact. For example, as new data are discovered or are drawn within the purvue of the discipline, perhaps by borrowing from a related field, old structures (concepts, generalizations, and theories) may be modified or new ones developed to accommodate the added data. Revised concepts and theories within a discipline, in turn, lead to interest in new types of data. The invention of new approaches or the more extensive use of existing methods has impact on both the collection of information and its interpretation.

A few examples will illustrate. The use of computers and new tools of statistical analysis are enabling social science scholars to handle a much wider range and, in some cases, different types of data than formerly. This has tended to encourage investigation of areas that lend themselves to the employment of these new instruments. The emphasis on quantification of data is felt particularly in economics, political science, sociology, and geography. Historians are employing concepts and methods from the behavioral sciences, with the result that new approaches are applied in analyzing historical data; as a consequence, historical interpretations are revised. In anthropology the traditional focus on study of primitive societies is widened to apply anthropological concepts and methods to the investigation of various types of cultures and new specializations, such as urban anthropology and medical anthropology, have appeared within the discipline.

Implications for Social Studies Programs. It is not the purpose here to delineate the current status of each of the social sciences, nor to analyze the developing trends within each discipline. Scholars within the various fields have written volumes on this theme; their findings are available to yearbook readers.[16] The points to be emphasized here are three.

First, current developments in the social sciences have enormously expanded the reservoir of specific information, organizational structures, and methods of inquiry from which materials are drawn for the school program in social studies. The problem of selection, long a difficult one, becomes increasingly complex as the amount of material that is available is multiplied over and over. The criterion of tradition, which has dominated the selection of material to be taught in the schools, has little utility today. It must be replaced by other criteria, such as those suggested in chapter 3.

Second, the acceleration of social science research does more than merely increase the quantity of available data from which choices must be made. As scholars in the various social sciences reexamine their disciplines, with increasing concern for identifying the ideational structures of their fields, the disciplines are refocused and reformulated. As the social sciences are transformed, their emerging scope and emphases must be reflected in the social studies programs of the schools.

Finally, keeping social studies in the schools abreast of developments in the parent disciplines will be a never-ending process. It will require continuing interchange among social scientists, social studies education specialists, and classroom teachers. To be functional, any plan for curriculum development must have built-in provision for such exchange and for revision of social studies programs on a continuing, rather than a periodic basis.

FORCES FOR CHANGE IN SOCIAL STUDIES PROGRAMS

The developments that are sketched in the foregoing section of this chapter constitute the setting for developing new social studies programs for the decades ahead. They also call for major revisions in traditional programs. More specific forces have exerted pressure for change in recent years, however. Although closely related, they will be considered under two headings: criticisms of existing programs, and change agencies of the 1960's.

Criticisms of Social Studies Programs

Since the end of World War II, weaknesses of conventional social studies programs have been discussed within the ranks of social studies specialists. It was not until "Sputnik fever" resulted in widespread public concern about the effectiveness of public education, however, that demands for basic revisions in the social studies curriculum, as well in other aspects of the school program, gain momentum. Since that time, many voices from outside "the establishment" have been heard.

While the critics often disagreed about what was wrong with social studies and what should be done, one fundamental criticism was widely accepted: *social studies in the school had lost touch with social reality.* That is, the social studies curriculum, particularly at the secondary level, had changed little in half a century; instead, it had continued to follow the pattern set by the National Education Association's Committee on Social Studies in 1916. Meanwhile, U. S. society has been transformed, so that social studies programs were dealing with a world of the past.

Related criticisms followed from this basic fault. Social studies programs failed to reflect recent research and interpretations in the various social science fields. Indeed, the behavioral sciences were drawn upon little, if at all, in traditional programs. History and geography dominated the programs, while the social sciences that deal most directly with contemporary society were neglected. Civics courses too often were a mixture of myth and routine descriptions of governmental structures; realities of political life were ignored. The curriculum was centered on the United States, with some attention to western Europe, but provided for virtually no study of international affairs nor of non-western peoples. Instruction emphasized rote learning and retention of specific information. Little opportunity was provided for students to deal with organizing ideas or to practice the skills of thinking critically, drawing conclusions from data, or developing their own interpretations and judgments. Finally, little or no attention was given to helping student identify, clarify, and formulate their own value systems.

Was, and is, the picture as dark as these criticisms indicate? No definitive "yes" or "no" can be given because there was and still is enormous variation in the nature and quality of social studies programs from one school to another. Various surveys of student reactions to social studies, however, have indicated that this field is one of the least-liked areas of the school program. The distaste for social studies develops rapidly in the intermediate grades and junior high school, and is well set by the senior high school. There is considerable evidence that many pupils, especially in the secondary years, see little relation between their social studies work and the real-life world they learn about through out-of-school experiences. While there are undoubtedly notable exceptions, the overall picture of student reactions suggests that their work in social studies is not developing young people's inherent interests in and concern about their social world, past, present, and future, and their own role in it.

Agents For Change in Social Studies Programs

During the decades of the 1930's, 40's and 50's, there were many efforts to up-date social studies curriculums, but they were piecemeal in nature. New topics were introduced into existing courses in an effort to get some study of such significant areas as world affairs, non-western cultures, and economic systems. Some schools introduced new courses, usually as electives in which only a few students could enroll. Financial support for these efforts was minimal, depending on local budgets that were hardly adequate to keep the schools in operation or on special interest groups who provided small subsidies for projects in their particular areas of concern. When federal funds began to be made available for curriculum study in the 1950's, social studies was one of the forgotten areas. The recipient fields were modern language, science, and mathematics. Not until the early 60's did the field of social studies begin to receive special funding for curriculum revision.

In recent years, however, more than 40 major social studies curriculum projects and many smaller ones have been financed by grants from the federal government, private foundations, institutions of higher learning, or a combination of these sources.[17] These special projects were nationally oriented; that is, they were to produce models and materials from which local school systems could choose those most suitable to adopt or adapt for use in the particular situation.

Examination of the major projects will show that there is great diversity in focus, scope, and approach among them. A few are comprehensive K-12 programs with an interdisciplinary or multidisciplinary base. Some have planned sequences for the secondary school years. Others are concerned with specific units or courses that draw on multiple disciplines and are intended for various parts of the K-12 program. Still others work from a multidisciplinary base to deal with broad themes or problem areas, such as Asian studies, Latin American studies, or intergroup relations. Many of the special projects, however, have been focused on a single discipline. There are at least a half-dozen working with some aspect of political science, five in economics, three in history, two in anthropology, and one each in sociology and geography.

Even while the nationally oriented projects were developing, a number of state education departments and large school systems undertook comprehensive curriculum studies in social studies. Some of these must be counted among the agents for change that have affected revision efforts across the nation, for their reports and recommendations have had considerable impact outside the geographic areas for which they were prepared. Examples are the California Framework and Wisconsin's "Conceptual Framework for the Social Studies in Wisconsin Schools," both of which have been studied by teachers and curriculum committees in many parts of the country.

More recently, the provisions of Title III of the Elementary and Secondary Education Act have stimulated local school systems to undertake experimentation and innovation in their social studies programs. Like the nationally oriented projects described above, the Title III projects are varied in focus, scope, and approach. This author's review of the first 66 that were funded shows that many emphasize the use of multi-media materials and activity-oriented instructional procedures to replace assign-recite-test routines based on a single textbook. A number combine this emphasis with plans for more flexible use of teacher and student time, through modular scheduling and various forms of large group, small group, and independent study procedures. New units or new courses are being developed in many of the Title III projects, while some are reconstructing the social studies program for a school unit (as intermediate grades or senior high school) and a few are engaged in K-12 revisions.

The various social studies projects and innovative programs have acted as agents for change in a number of ways and their impact will continue to be felt in the years ahead. They have brought social scientists, social studies education specialists, and classroom teachers into closer contact than has ever before been the case. The variety among the projects has served to open up alternatives that provide choices for local curriculum planners and that may stimulate the design of still other alternatives. Materials produced by the projects are becoming available, enlarging the reservoir of resources for classroom use. Project materials also serve as models for commercial publishers; their influence is thus extended. The most important result that could come from the social studies projects of the 60's, however, would be the development of a climate in which curriculum experimentation and innovation becomes the norm rather than the exception.

DEVELOPING EMPHASES AND CONTINUING ISSUES IN SOCIAL STUDIES PROGRAM PLANNING

With all the diversity that is present in current efforts at innovation in social studies, some basic emphases are emerging. At the same time, there are certain areas in which little agreement has been reached and others in which relatively little work has been done. Some of these trends and problems have been suggested in earlier parts of this chapter. Some will be discussed more fully in later chapters of this yearbook. The summary which follows is intended to highlight the apparent trends and questions that must be considered in the years ahead.

Program Organization

How the social studies program is to be organized may seem, at first thought, to be a second or third order of business in curriculum reform. Some decisions in this area are undoubtedly of lesser priority; but the determination of what is to be taught, and how, will be influenced by the basis on which the program is structured.

Organizing the Program Around Concepts and Generalizations. The effort to establish a conceptual structure and use it as a basis for organizing the social studies program has received much attention in the curriculum reform movement. The reasoning which supports this effort is discussed above, as are the implications of a conceptual approach for establishing scope and sequence and for selecting content. It is true, as Price points out in chapter 2, that no agreement has been reached as to the particular set of concepts and generalizations that would constitute the best ideational framework for the social studies curriculum. Perhaps the benefits to be gained from a conceptually structured program do not depend on such agreement. Perhaps they can be achieved in any curriculum that is formulated so as to develop significant ideas, rather than to teach specific information. Nevertheless, it seems likely that the search for a generally acceptable conceptual framework, or alternative frameworks, will continue.

Organizing the Program for Sequential Learning. Going hand in hand with the search for conceptual structures is increased attention to sequence in the total elementary and secondary program. One approach is the spiraling treatment of basic concepts and generalizations through the entire sequence, as noted above. The effort to provide for sequential learning is also reflected in plans for cumulative development of skills. Important concepts and skill areas are analyzed to discover their specific components. These are then to be arranged in an order that will help the learner build from one unit to the next, and one year to the next, so as to increase both the breadth and the depth of his command of the concepts and skills. For such a plan to function, frequent diagnostic measures must be used to determine where the learner is and what next steps he is ready to take.

Experimenting with Internal Organization of Units and Courses. As suggested above, interdisciplinary, multidisciplinary, and separate subject organizations for units and courses are found in the various innovative social studies programs. In most of the projects that are concerned with a series of school years, a combination of these organizational approaches is employed in the total sequence and, in some cases, within a course for a single year. In many, probably in most, of the projects dealing with the primary and early intermediate grades, the internal organization is interdisciplinary. There are, however, a few notable exceptions. An interdisciplinary approach is also employed in some secondary courses, particularly in culture area studies and problems courses.

A multidisciplinary organization, which provides for study of the problem or topic at hand from the viewpoint of each of the social sciences, gives opportunity to introduce students to the various disciplines as disciplines. This organization also can help to demonstrate that an understanding of most significant problems requires data from several of the social sciences. A number of the secondary courses coming from the special projects, particularly area study courses, follow this pattern.

In the new curriculums proposed for the secondary schools, there are also many separate subject courses. Most of them, however, draw in some related materials from disciplines other than the one which provides the internal organization for the course. It seems safe to say that even when the separate subject organization is used, relationships of that subject to other disciplines are receiving increased attention.

The comparative approach is used in a striking number of the new programs. It appears at both the elementary and secondary levels and within separate subject courses as well as those organized on an interdisciplinary or multidisciplinary basis. In this approach, a set of significant questions is applied to a series of topics or issues, such as contrasting political or economic systems, patterns of family life, or resource use in various cultures. The comparisons may be cross-cultural or they may be of different time periods in the same culture.

Emphases in Content

Many of the criticisms of the traditional social studies curriculum have been concerned with the program content, as noted on page 19. It is not surprising, therefore, that one of the most outstanding features of recent innovative efforts is a search for content that is relevant to the conditions and problems of contemporary society.

Tapping the Range of Social Science Disciplines. If the flood of materials that is beginning to come from the special projects of the 60's has the impact that may be anticipated, one result will be to end the traditional dominance of chronological history in the social studies curriculum.

Materials from anthropology, sociology, and social psychology are woven into many of the new programs for both elementary and secondary levels. Comparative studies of family and community are frequently recommended for the elementary grades as a means of introducing younger children to such ideas as cultural change, variations in ways of meeting basic needs from one culture to another, how culture affects the individual personality, and the concept of role, role expectations, and conflicts among roles. Several of the courses that have been prepared for the early secondary school years include study of social institutions and of the individual's relation to them. Anthropological approaches are employed in area studies for both junior and senior high school. Model courses in sociology and anthropology are under preparation. Already there seems to be an increase in the number of senior high school courses in sociology and a few in anthropology are appearing.

Even before the wave of special social studies projects began, attention to economics in both elementary and secondary social studies had been increasing since World War II, largely as a result of the work of the Joint Council on Economic Education. The emphasis on economics has accelerated rapidly during the 60's. The materials from many of the special projects that are not devoted exclusively to economics treat economic concepts and topics in both elementary and secondary school years. Model courses in economics, each based on a particular interpretation of the structures of the discipline, have been issued for both junior and senior high school.

New approaches to an expanded treatment of political science content are found in many of the experimental programs. Concepts such as authority, conflict resolution, and justice under law are treated in materials for the elementary years and are dealt with systematically in units or courses for older children and youth. Comparative study of governments, emphasizing political processes and behaviors rather than descriptions of governmental structure, is recommended in a number of the projects.

New emphases in geographic studies are appearing, also. Many of the experimental materials for the elementary school introduce geographic concepts and skills several years earlier than has been done in the traditional program, even in the kindergarten and early primary grades. Place geography and the outmoded concept of environmental determinism are replaced by stress on man's interaction with his cultural as well as his physical environment. New programs for the secondary school, where geography was long ignored, introduce a considerable geographic content in area study courses. Separate units and courses in geography, emphasizing current interpretations from the parent discipline, are also recommended.

The trend toward drawing substantially on the entire range of social science disciplines seems certain to have increasing impact on social studies programs in the immediate future.

Providing a Comprehensive World View. Another striking feature of current efforts to up-date the social studies program is a strong emphasis on non-western studies and on content dealing with world affairs. It has been noted above that traditional social studies programs were oriented almost exclusively to study of the United States and western Europe. During the 1940's and 50's this situation began to change slowly. Study of U. S. foreign policy and of the nation's role in world affairs received increased attention in U. S. history and problems courses, and at least token attention was paid to formerly neglected regions of the world in some world history courses. The experimental projects of the 60's have accelerated the trend toward providing a comprehensive world view by producing units, courses, and materials for both elementary and secondary levels that stress world cultures and international affairs.

Other trends that have already been discussed facilitate the "world view" emphasis. Comparative study of families, communities, and regions in the elementary years makes it possible to include examples from Asia, Africa, and Latin America. The increasingly popular secondary school courses in culture area studies, comparative economic systems, and comparative governments treat non-western as well as western peoples and nations. The intention of many of the major projects, to gain a more adequate treatment of the world scene in social studies programs, seems likely to be realized.

Treating Process as Content. In many of the innovative projects, teaching about the tools and methods of the various social sciences is recommended. Opportunities for learners to utilize some of these modes of inquiry, at a level appropriate to the students' maturity, are also built into the curriculum materials. To illustrate, information about aspects of historical method, the geographer's use of maps to correlate data, sampling techniques, and survey procedures is presented at points where such information is pertinent to a topic that is being studied. Suggestions are included for related studies that pupils may make, utilizing the tools with which they have become familiar. In some ways, for reasons that are discussed in chapter 3, the emphasis on process as content may be the most significant aspects of the search for relevancy in selecting content for the social studies program.

Instructional Strategies and Materials

To implement new approaches for structuring the social studies and revised emphases in content, appropriate teaching strategies and learning materials must be employed. The innovative programs of the 60's have addressed themselves to this challenge in varying degrees. In some of them, particularly in the Title III projects, different combinations of large group, small group, and independent study, which Becker discusses in Chapter 3, have been used. Flexible grouping and alternative assignments within the regular classroom setting have characterized the teaching strategies recommended in some projects. In others, there has been continuing reliance on the conventional classroom organization. Two major emphases in teaching strategies and materials, however, run through most of the innovative programs: a stress on inquiry and discovery, and the use of multi-media materials.

Inquiry and Discovery. In an effort to break the stranglehold of assign-recite-test routines in social studies classrooms, many of the special projects have experimented with teaching strategies that are intended to encourage the learner to "find out for himself." Inductive approaches, inquiry, and discovery are widely recommended. Even in the early school years, pupils are called on to collect information from a range of sources, organize it, and develop their own conclusions and generalizations. Learners are asked to formulate hypotheses and check them against data which they search out.

As Sanders points out in chapter 5, there are varying types and degrees of discovery and inquiry, and there are problems as well as advantages in employing discovery approaches. There can be no doubt, however, that the attention the projects have given to inquiry and discovery by learners has encouraged experimentation with new teaching procedures and has popularized instructional strategies that have long been known to be effective but have been used in only a small minority of classrooms.

Multi-Media Learning Materials. Just as inquiry and discovery are the key words to indicate trends in instructional strategies, so multimedia and a systems approach to materials have characterized efforts at innovation in the area of learning materials. Recognizing the inadequacies of the conventional textbook, especially when used as the single source for students to consult, social studies project staffs have identified or developed a wide range of learning resources to implement their new programs.

As Gibson points out in chapter 6, reading materials continue to constitute the major share of the new resources, but they take many forms. Pamphlet series and paperbacks are recommended as unit texts or for independent reading. Expository accounts are minimized or even eliminated in favor of case studies, selected documents, readings focused on a major concept or issue, and open-ended descriptions of problem situations. Some programmed materials are being developed. In the realm of audiovisual resources, many of the projects emphasize transparencies for overhead projectors, films, filmstrips, slides, tapes, kits of models and artifacts, single concept loops, sets of pictures and special-purpose maps and charts, and other graphics. Equipment for simulation games has been prepared by a number of projects. Already, commercial publishers are beginning to respond to the emphasis on multi-media materials, to some extent.

The stress on multi-media learning materials is tied in with a "systems approach" to their use. The term, systems approach, also has broader implications for social studies curriculum planning which are discussed in chapter 3. With reference to materials selection, this approach requires that the type of material to be employed in a given situation and for particular students be chosen to serve the immediate instructional purpose and to fit the characteristics of the learners. Differences in learning styles among pupils can be met, at least in part, by providing alternative materials from the various media for study of the topic at hand.

Continuing Issues and Problems

The question of priorities in goals for social studies instruction continues to be a controversial area. It is true that considerable agreement seems to be emerging on the importance of process goals, that is on teaching the skills of inquiry and rational thinking. There is concern about the development and clarification of values as proper goals in social studies teaching. It is clear, as Price points out in chapter 2, that consensus has not been reached about the priorities to be assigned to these and other areas in the formulation of goals for the social studies program.

A second issue that continues to be debated is, "how much inquiry?" Although there is wide acceptance of the values of inductive approaches, the question of what is an appropriate balance between "discovery" and "reception" learning for pupils of different maturity, varying abilities, and contrasting learning styles has not been resolved. Sanders explores this issue in chapter 5.

While the innovative efforts of the 60's have given attention to many significant aspects of social studies instruction, there are some neglected problem areas. Little attention has been given to the realm of affective learning in social studies. A second neglected area is that of evaluation, in which there is a critical need for new approaches and instruments to measure of effectiveness of innovations and of pupil progress in conceptual, affective, and process learning. A third, and one that stands out because of its urgency in a period of social crisis, is the development of effective programs for children and youth who, for various reasons, have not achieved well in school. What kind of social studies program will reach disadvantaged pupils of the inner city? What kinds of curriculums can help the non-academic minded, who have been labeled as slow learners, to achieve? There has been much discussion, but practically no effort has been made to devise fundamentally new approaches and programs that take these young people's backgrounds and needs into account. The basic issue that has not been faced directly is whether, to achieve the special goals of social studies, radically different programs must be developed for special groups of learners and, if so, what forms such programs might take.

Finally, there is the many-faceted problem of effecting change in the classroom where the real action takes place. The many dimensions of this problem include: the delineation of criteria for determining what kinds of change are needed and what innovative materials to adopt or adapt; the development of workable procedures for innovation in a local school; the preparation of teachers to handle a broader range of content, instructional strategies, and materials; and the creation of public support for new programs. Morrissett, Stevens, Woodley, Wronski, and Gibson, in chapters 8, 9, and 10, reflect on these and other aspects of the basic problem of implementing change.

The overview of the changing scene in social studies that has been presented in this chapter will have served its purpose if it helps the reader to place in perspective the current trends and issues in social studies curriculum development and to identify significant areas in which decisions must be made. It would be easy, in the present educational climate, to succumb to an attitude of change for the sake of change without considering the fundamental question of priorities in decision-making. The top priority may well be a value judgment, that of *deciding what goals should be stressed.* Should the main emphasis be on cognitive content, processes, and operations, or on the affective realm of values, attitudes, and beliefs? Or, more realistically, what combination of the two types of goals should be made? Once clear agreements are reached in this crucial area, other decisions about program and strategies come into focus. This reminder may seem to the reader to be unnecessary and simplistic. Yet many examples can be found of teachers and curriculum committees plunging into new programs without clarifying the basic question of what they are trying to accomplish.

The prospects for enormously improved programs in the years ahead are great. So are the problems that must be resolved if these prospects are to be realized. That is the challenge to social studies educators today.

FOOTNOTES

[1] The following summary draws heavily upon:

Commission on the Year 2000 of the American Academy of Arts and Sciences. "Toward the Year 2000: Work in Progress." *Daedalus* 96: 639-988, Summer, 1967;

Prospective Changes in Society by 1980. Denver: Designing Education for the Future, An Eight-State Project, 1967. 268 pp.;

Implications for Education of Prospective Changes in Society. Denver: Designing Education for the Future, An Eight-State Project, 1968. 323 pp.; and

Calder, Nigel, editor. *The World in 1984.* Baltimore: Penguin Books, 1965, Vol. 1, 215 pp. Vol. 2, 205 pp.

[2] For fuller discussion of this point of view, see: Mesthene, Emmanuel G. *How Technology Will Shape the Future.* Cambridge, Mass.: Harvard University Program on Technology and Society, 1968. (Reprint No. 5) 24 pp.

[3] See the *New York Times,* November 13, 1968, p. 29, for excerpts from C.P. Snow's lecture on world problems, delivered at Westminster College, Fulton, Missouri, November 12, 1968.

[4] Hauser, Philip M., and Taitel, Martin. "Population Trends." *Prospective Changes in Society by 1980, op. cit.,* pp. 23-25, 54-55.

[5] Kahn, Herman, and Weiner, Anthony J. "The Next Thirty-Three Years: A Framework for Speculation." *Daedalus* 96:718.

[6] *Ibid.*, p. 727.

[7] Bell, Daniel. "The Trajectory of an Idea." *Daedalus* 96: 645.

[8] For further discussion of these points, see:

Elazar, Daniel J. "The American Partnership." *Prospective Changes in Society by 1980, op. cit.*, pp. 111-112;

Moynihan, Daniel P. "The Relationship of Federal to Local Authorities." *Daedalus* 96: 801-4.

[9] For further discussion of "pluralism," see: McConnel, Grant. "Non-Government Organizations in American Political Life." *Prospective Changes in Society by 1980, op. cit.*, pp. 121-137.

[10] Zworykin, V.K. "Communications and Government." Calder, *op. cit.*, Vol. 2, pp. 51-53.

[11] For another formulation of choices, see: North, Robert C. "The World of the Forthcoming Decades: A Pessimistic and Optimistic View." *Social Education* 32: 670-2; November, 1968.

[12] For a pioneer study of this point, see: McAulay, J. D. "Social Studies in the Primary Grades." *Social Education* 18: 357-8; December, 1954.

For summaries of some of the most recent studies, see: Cox, C. Benjamin; Johnson, William D.; and Payette, Roland F. "Review of Research in Social Studies: 1967." *Social Education* 32:557-71; October, 1968.

[13] For a comprehensive discussion, see:

Easton, David, and Dennis, Jack. "Political Socialization of the Elementary School Child." *Political Science and the Social Studies.* Thirty-Sixth Yearbook. Washington, D. C.: National Council for the Social Studies, a department of the National Education Association, 1966. pp. 216-235; and

Patrick, John J. *Political Socialization of American Youth: Implications for Secondary School Social Studies, A Review of Research.* Research Bulletin No. 3. Washington, D. C.: National Council for the Social Studies, a department of the National Education Association, 1967. 75 pp.

[14] For further discussion of current conceptions of readiness, see: Tyler, Fred W. "Issues Related to Readiness to Learn." *Theories of Learning and Instruction.* Sixty-Third Yearbook, Part I, National Society for the Study of Education. Chicago: University of Chicago Press, 1964. pp. 210-39.

[15] Bloom, Benjamin S. "Learning for Mastery." *UCLA-CSEIP Evaluation Comment* 1: No. 2, May, 1968. (No pagination)

[16] Useful surveys include:

American Council of Learned Societies and the National Council for the Social Studies. *The Social Studies and the Social Sciences.* New York: Harcourt, Brace and World, 1962. 303 pp.;

Hunt, Erling M., *et al. High School Social Studies Perspectives.* Boston: Houghton Mifflin, 1962. 344 pp.;

Michaelis, John U., and Johnston, A. M., editors. *The Social Sciences, Foundations of the Social Studies.* Boston: Allyn and Bacon, Inc., 1965. 350 pp.;

Muessig, R. H., and Rogers, Vincent, editors. *Social Science Seminar Series.* Columbus, O.: Charles E. Merrill, 1965. 6 volumes; and

Morrissett, Irving, editor. *Concepts and Structure in the New Social Science Curricula.* Boulder, Colo.: Social Science Education Consortium, 1966. 161 pp.

[17] For a list of major social studies projects, see: "A Directory of Social Studies Projects." *Social Education* 31:509-12; October, 1967.

CHAPTER TWO

Roy A. Price

Goals for the Social Studies

Goals reflect the values in any society. Every statement of educational purposes reflects the judgment of some person or group as to what is good and what is bad, what is true and what is false, what is ugly and what is beautiful, what is valuable and what is worthless in the conduct of human affairs. A society such as ours, dedicated to the worth of the individual and committed to the nurture of free, rational, and responsible men and women, has special reason for valuing education. We seek to foster individual fulfillment to the end that each individual achieves the promise that is in him, and participates constructively and responsibly in a free society. Thus education is essential not only to the individual's fulfillment but to the vitality of our national life. The strength and vigor of our free institutions depend upon men and women at every level of our society.

To set realistic goals for the social studies curriculum of the coming decades, we must begin with the fact that Americans are living in an age that is characterized by revolutionary developments in science and technology, in social, economic, and political relationships, and in international affairs. Among the ongoing revolutions in our society, each with both pessimistic and optimistic potentialities for profoundly altering the lives of mankind, are those resulting in: nuclear power and weaponry; space exploration; satellite communications networks and supersonic transportation that raise to a critical point the mutual interdependence of the peoples of the world; cybernetic systems with possibilities of controlling industries, communication and transportation, urban services, tax allocation and collection, voting arrangements, and other aspects of societal institutions in our urbanized nation, and the prolongation of human life.

As Whitehead has observed, our period is unique in human history in that we can no longer assume that each generation will continue to live under conditions substantially the same as those which their fathers encountered. For illustration, we need only look at the challenge of preparing students to live in a predominantly urban society. Megalopolis is a new phenomenon. Before 1850 no society in the world was predominantly urbanized. Today, if we add much of the non-farm rural population which is really urban, the percentage of the population in the United States which is urban goes to 82 per cent. Bernard Weissboard estimates that from 55 to 60 million more people will be living in metropolitan areas in 1980 than were living there in 1960.[1] Max Lerner has observed that the city is the battleground of the values of the cultures.[2] Certainly the very nature of the community conditions what goes on in the schools. The social upheaval brought about by megalopolis requires careful attention to reformation of educational goals.

The time span of change has been radically reduced, resulting in a serious educational lag. Education of the 70's and 80's must be aimed at equipping individuals to anticipate change and to develop the cognitive structure, analytical skills, and affective responses which would seem to be functional in coping with a continually changing social environment.

Another fact that must be taken into account in considering goals for the social studies curriculum of the future is the pluralistic nature of American society. This pluralism has been reflected in a confusion of educational goals since the beginnings of public education — and of social studies as a curriculum field. The rapid acceleration of change in today's technological society has added to the lack of clarity of goals a dimension of even greater complexity of public pressures and increased urgency of the quest for purpose.

THE NEED FOR CLARIFICATION OF GOALS

Lack of agreement among educators and the lay public as to the goals of social studies instruction has tended to multiply as cultural diversities have become sharper, as the explosion of knowledge has led to fragmentation within the social sciences, as the rate of technological, social, and political change has constantly accelerated, and as the school has been expected to assume additional responsibilties formerly performed by institutions such as the family, the church, and other community organizations. The impersonality of urban living and of large scale organization has had profound repercussions upon processes of political socialization, increasing the difficulties of defining social studies goals.

Confusion of purposes of the social studies has led, in some instances, to the teaching of subject fields as ends in themselves, not as resources which can be used to equip students with ways of thinking, feeling, and acting which can enable them to behave more effectively and with greater understanding and satisfaction. In other instances, lack of clarity as to purpose has led to a different kind of problem. History, for example, has been taught as myth for the indoctrination of students in the prejudices of their own communities. Geography has been taught as the listing of places on a map, or the learning of names of physical phenomena, or as a description of foreign places and peoples with emphasis upon long since departed esoteric features. Economics may be taught as a way of emphasizing the superiority of American life, rather than as a means of analyzing how an economic system provides for the allocation of scarce resources.

Evidence continues to mount that the social studies may be among the least effectively taught of the basic subjects in American schools. Data from standardized interest inventories indicate a low pupil motivation level. Results of high school alumni questionnaires, generally, suggest a low rating by high school graduates of social studies courses taken. Studies by Bellack and others indicate lack of purposeful and meaningful student-teacher interaction.[3] Public opinion samplings of knowledge, attitudes, and belief among high school students raise questions about the success of much social studies instruction. And a survey by Martin Mayer, reporting on visits to classrooms of teachers throughout the country, suggests the need for radical revisions of social studies offerings.[4] Many factors, such as inadequate funds for materials, overburdened teachers, and lockstep schedules, probably contribute to this gloomy picture; but a central cause may well be the lack of clearly defined goals that would enable teachers and learners to focus their efforts on significant tasks.

At the very time that goals have become increasingly obscure, with results such as those just cited, the need for clarification has become more urgent. The challenge to educators of the intellectual, technological, and moral revolutions, with their enormous implications for human wellbeing, is awe-inspiring. If purposes are not clear, instruction may be irrelevant and meaningless. Without adequately defined goals, it is difficult if not impossible to select appropriate content, learning experiences, or materials. The teacher will function in a fog unless he knows what he expects the student to be able to do at the end of instruction.

SOCIAL STUDIES GOALS IN HISTORICAL PERSPECTIVE

Throughout the history of American education there have been shifting emphases upon teaching history and the social sciences for moral and religious values, for social literacy, for citizenship (including policy, participation, and commitment), and for utility (including vocational and social skills). In view of these diverse purposes, a glimpse of social studies objectives in historical perspective can help to clarify today's problem.[5]

Goals of the Nineteenth Century

Before 1900, the social studies area in the school curriculum was largely devoted to the teaching of history. Six chief value claims for study of history were emphasized in the period before 1860. This subject, it was held, would provide valuable training in morals, furnish training for the use of leisure time, serve as a great inspiration for patriotism, train for a higher order of citizenship, afford occasion for religious training, and strengthen and discipline the minds of those who mastered its content. During the period from 1860 to about 1890, two values of teaching history — the disciplinary and the moral values — continued to receive greatest emphasis. Less in evidence but receiving considerable attention in the literature of this period were the values of patriotism and citizenship training.

The Era of National Committees

The period from 1890 to 1920 witnessed a series of national committees which provided lists of objectives and subject-oriented curriculum proposals. Three emphases dominated the objectives of teaching history: creating individuals who were socially intelligent, sympathetic, and active; development of historical mindedness; and the use of the past to explain the present. The disciplinary value of teaching history continued to receive great emphasis, reinforced by the influential report of the Committee of Seven of the American Historical Association. History, the report declared, ". . . cultivates the judgment by leading the pupil to see the relation between cause and effect . . .," ". . . gives training not only in acquiring facts, but in arranging, and systematizing them . . .," ". . . is also helpful in developing . . . the scientific habit of mind and thought . . .,"and is a powerful tool through which ". . . the pupil's imagination is at once quickened, strengthened, and disciplined. . . ."[6]

The early decades of the twentieth century brought a new emphasis upon training for citizenship and sought to stress education for life in the new industrial, urban culture that was rapidly emerging in the United States. The report of the National Education Association's Commission on the Reorganization of Secondary Education, greatly influenced by the work of Herbert Spencer, dealt with the needs of society to be served, the character of the individuals to be educated, available knowledge from educational theory and practice, and evidences of changes in American society. The Commission enunciated, as the basic objectives of education, the famous Seven Cardinal Principles of Secondary Education: health, command of the fundamental processes, worthy home membership, vocation, citizenship, worthy use of leisure, and ethical character.

The Commission's Committee for the Social Studies, in keeping with the new emphases, sought to broaden the content from the social sciences to be included in the curriculum. It recommended that geography and civics be stressed, along with European and American history, in the junior high school years and that content from the social sciences be brought into the senior high school through a new course in problems of American democracy — social, economic, and political.

New Views of Goals, 1920-1940

The period from 1920 to 1940 brought an extension of differentiation in American education which was reflected in the social studies field. Concern for character education was reflected in the publication of the 1932 yearbook of the Department of Superintendence of the National Education Association. In this volume there was heavy emphasis upon the role of history and the social sciences in character education. This period also saw a new attention to guidance values and conceptual values as goals of social studies instruction. In view of the current emphasis upon conceptual structure, it is interesting to note the following concepts which Tryon identified as points of emphasis in the social studies curriculum:

> *. . . "continuity of civilization," "unity of humanity," "uniformity of human motives," "brotherhood of man," "dependence of the present on the past," "responsibility of the present for the future," "relation of the individual to society," and "dynamic and evolutionary character of human activity and social organization."*[7]

Perhaps the first systematic attempt to treat the objectives of social studies teaching appeared in the work of the Commission on the Social Studies of the American Historical Association. Charles A. Beard, who did the basic work on the first volume of a series produced by that Commission in the 1930's and 1940's, wrote:

> *Our fundamental purpose here is the creation of rich, many sided personalities, equipped with practical knowledge and inspired by ideals so that they can make their way and fulfill their mission in a changing society which is part of a world complex.*[8]

Pointing out that any formulation of objectives, selection of materials, or organization of knowledge is controlled fundamentally by the frame of social reference, and that any statement of objectives reflects the values inherent in the society, Beard continued:

> *Social science cannot ignore ethical considerations; otherwise it would become a branch of inert scholasticism without direction or motive force. Insofar as social science is truly scientific it is neutral; as taught in the schools it is and must be ethical; it must make choices and emphasize values with reference to commanding standards.*[9]
>
> *All instruction in the classroom must turn on the individual pupil; its results must inhere in the individual; even though some idealized*

> *scheme of social arrangements may be the controlling motive in the organization and imparting of learning.*[10]
>
> *. . . any social science worthy of its name must objectify itself in the development and improvement of individuals, institutions, human relations, and material arrangements already in course of unfolding in the United States.*[11]

The Charter also points out that:

> *The aim of civic instruction . . . is to strengthen democratic institutions, make clear their working, point out defects generally agreed upon, provide more effective leadership, illuminate every possible corner of the political scene, and promote habits of critical fairness among the electorate.*[12]

Beard commented, in *The Nature of the Social Sciences*:

> *Throughout . . . are kept in view the two aspects of the subject — the good life for the individual and the social arrangements which are compatible with this good life and calculated to promote it.*[13]

In view of the current emphasis upon inquiry and discovery, it is interesting to note Beard's emphasis upon the teaching of analytical concepts rather than inert data.

> *. . . capacity to understand, analyze, bring information to bear, to choose, to resolve, and to act wisely. Competence in the individual, not dogma, is our supreme objective.*[14]
>
> *The primary information which social science must supply through the school to individuals is information concerning the conditioning elements, realities, forces, and ideas of the modern world in which life must be lived.*[15]

The Charter also stressed the need for attitudes and aptitudes of adjustment appropriate to a rapidly developing world:

> *No scheme of instruction can vividly portray to pupils all the coming situations of their lives in which they must make fateful decisions. . . . Hence the necessity for laying emphasis on freedom of opinion and the liberation of intelligence as schemes of thought, affection and practice.*[16]

In 1938 there appeared a reformulation of the general purposes of education which had major implications for social studies goals.[17] The Educational Policies Commission identified education for a democratic way of life as the overall purpose of American schools, with this inclusive goal to be achieved by implementing the broad objectives of (1) self realization, (2) human relationship, (3) economic efficiency, and (4) civic responsibility. Each of the four broad objectives was further subdivided. During the 1940's and 50's this statement of goals was much used by social studies curriculum committees as a source of suggestions for general statements of purpose.

Recent Efforts to Clarify Goals

More recently a comprehensive analysis of the purposes of American education has been undertaken by the Exploratory Committee on Assessing the Progress of Education. In the field of citizenship, this Committee identified nine objectives and listed descriptive behaviors for each objective at four different age levels (30, 17, 13, and 9). The nine objectives, which are stated somewhat differently at the different age levels, are expressed as follows for nine years old:

I. Show concern for the welfare and dignity of others.
II. Respect individual rights and freedoms.
III. Help maintain law and order.
IV. Know the main structure and functions of our government.
V. Seek school and community improvement through active democratic participation.
VI. See the importance of world peace.
VII. Support independent, informed thought on school and social problems.
VIII. Take responsibility for their own personal development and excellence.
IX. Help and respect their own families.[18]

The descriptive behaviors for each objective are stated at two levels, one fairly general and the other quite specific. The three general behaviors that are given for the fifth objective, together with an example of the several specific behaviors that are listed for each general statement, will illustrate.

Good nine-year-old citizens:

A. Actively work for school and community improvement.

They volunteer to help on school projects or activities (e.g., painting mural for classroom, helping in school office, monitoring, clean-up campaigns), and on community projects such as setting up chairs for a meeting, passing out circulars, or planting trees.

B. Apply democratic procedures on a practical level when working in a group.

They encourage the hearing of different viewpoints before voting on an issue.

C. *Display fairness and good sportsmanship toward other group members.*

They try to choose other students for special roles and tasks on the basis of the student's interest and ability rather than solely on the basis of friendship.[19]

This historical review of goals for social studies instruction in American schools reveals a number of persisting general concerns, as for the development of ethical values, effective citizenship, and "thinking abilities." Since the turn of the century there has been increasing awareness that accelerating societal change, as well as a growing body of information and theory about the learning process and about human development, demanded rethinking of the objectives of social studies teaching, with consequent revisions of the curriculum. Some efforts were made along this line. Yet only within the past generation have efforts to clarify objectives moved beyond the stating of goals at an extremely general, even a global level. Increasingly, it is believed that, while high-level general objectives must be formulated in order to set direction for the social studies program, there also must be a systematic analysis of these broad purposes into their component parts. This is held to be necessary in order that definite behavioral outcomes, which will contribute to the achievement of the overriding goals and on which classroom procedures may be focused, can be specified.

THE MULTIPLE OBJECTIVES OF SOCIAL STUDIES INSTRUCTION

As efforts to develop systematic statements of social studies goals got under way in the second quarter of the century, it became customary to state objectives in the three categories of knowledge or understandings, skills, and attitudes. In the social studies curriculum reform movement of recent years these categories have been re-examined, redefined, and refined. Although this work is still in progress and no universally accepted formulation of each realm has as yet been developed, there seems to be considerable agreement that social studies teaching should (1) develop in the learner a cognitive structure of knowledge; (2) teach scientific modes of thought; and (3) work toward goals defined in terms of value commitments, social policy, and social action. More specifically, the multiple goals of social studies may be classified as follows:

A. Knowledge
    Facts
    Concepts
    Generalizations
    Principles and theories
B. Methodology or Processes of Inquiry
    Basic cognitive skills
    Modes of inquiry and decision-making in the social sciences
C. Affective goals
    Attitudes
    Feelings
    Sensitivities
    Values

Many of the recent and current projects involving cooperation of classroom teachers, social scientists, and curriculum workers have contributed to the effort to analyze and classify purposes for social studies instruction, but agreement upon goals and a number of related issues has not emerged. There appears to be substantial consensus as to the desirability of detailed performance-related objectives in terms of facts, concepts, and generalizations. There is ready acceptance of the need to involve students in learning experiences which will develop the capacity for continuous learning, preparing them to anticipate and adapt to change. There is little agreement, however, on goals in the affective realm; indeed, in some projects this area receives little attention or is even explicitly placed out of bounds. A closer examination of each category of goals will illustrate the areas of consensus and controversy.

Knowledge

Certainly it is clear that among the objectives of the teaching of social studies, acquisition of a body of facts, concepts, and generalizations is fundamental. While many facts quickly become obsolete and therefore irrelevant, it is evident that knowledge of some facts, concepts, and generalizations is basic to understanding of the cultural heritage and that facts, concepts, and generalizations also constitute the tools by which comprehension and inquiry are made possible. Charles Frankel speaking at a conference on "Needed Research in the Social Studies" in 1963 commented that:

> *I take it that it is not controversial to say that the first ten amendments of the Constitution exist and that young citizens of the United States should have this information; it should also be plain that the rights incorporated in these amendments cannot be understood simply by reading the language of these amendments. There is a body of judicial decision; there is a history of controversy and struggle, there is everyday dilemma in American life, which democratic citizens have to be acquainted with if they are to conduct democratic government successfully. Yet we know that ignorance of the American Bill of Rights and naivete as to the problems that are bound to exist in any democracy — and that do democracy credit — are very wide-spread in the United States.*[20]

Taylor makes the important point that:

> *The role of the subject fields is not as ends in themselves, but as resources which can be used to equip students with ways of thinking, feeling, and acting which can help him to behave more effectively and with greater dignity and satisfaction.*[21]

Bruner has had significant impact on current thinking about the importance of cognitive structure in the teaching-learning process. He advances the theory that teaching the structure of a discipline enhances understanding, retention, and transfer by assisting students to see relationships and by giving them something to hang their facts on.

> *Grasping the structure of a subject is understanding it in a way that permits many other things to be related to it meaningfully. To learn structure, in short, is to learn how things are related.*
>
> *Mastery of the fundamental ideas of a field involves not only the grasping of general principles, but also the development of an attitude toward learning and inquiring, toward guessing and hunches, toward the possibility of solving problems on one's own.*[22]

Thus Bruner argues that grasping fundamental ideas makes a subject more comprehensible, that unless ideas are placed into a structured pattern they are rapidly forgotten, and that understanding of fundamental principles and ideas appears to be the main road to transfer.

Curriculum workers, classroom teachers, and social scientists have readily grasped the idea of teaching structure, but have interpreted structure to mean different things. To some, structure means inquiry. To others, structure implies a cognitive structure of facts, concepts, and generalizations in addition to the methodological skills inherent in the disciplines. One widespread interpretation of structure, however, calls for the identification of concepts and generalizations that can be used as a framework for developing the scope and sequence of the curriculum. Tanck's description of one model of knowledge, in chapter 4, will help to clarify this interpretation.

In many projects, scholars representing the social science disciplines, working with teachers and administrators, have been attempting to identify the main ideas (concepts and generalizations) of the discipline which are important for the social studies curriculum. Extensive lists of such concepts and/or generalizations have been developed by committees in California, Wisconsin, and Colorado, and we at Syracuse have published a list of 34 such concepts. Most of these efforts have been conducted by listing generalizations for each separate discipline. For example, the Wisconsin committees identified the following main ideas from the field of political science:

1. *Every society creates* laws. *Penalities and* sanctions *are provided for violations of law.*
2. Governments *are established by man to provide protection and services. In some governments people delegate the authority; in others authority is imposed.*
3. Democracy *is government in which* decision-making *is in the hands of the people who make their desires known through voting, political parties and pressure groups. Democracy seeks to protect the rights of individuals and minority groups.*
4. Citizenship *involves varying degrees of* obligations *and* privileges *depending upon the form of government. An active, educated citizenry is essential to a democracy.*
5. *There is a division of responsibility and an* interdependence *at all levels of government: local, state and national. All nations of the world are becoming more interdependent.*[23]

A second illustration of conceptual goals derived from a single discipline is found in *Economic Education for Washington's Schools.* The teachers evolved a set of economic "concepts" which are actually stated as generalizations, and suggested learning activities for each grade, kindergarten through six, designed to promote economic literacy. Pointing out that the utility of this project resides neither in the publication nor the resources available, but can be realized only through "the ability of the teacher and the local school to rally all resources and bring them to bear within the existing curriculum," the publication lists economic generalizations for each grade level. Typical of these is the listing for grade three:

ECONOMIC CONCEPT I

The basic economic problem confronting all people is the conflict between unlimited wants and limited resources. Individual wants change with time but collectively wants are always increasing and unsatisfied.

ECONOMIC CONCEPT II

Each country possesses a stock of productive resources. These resources are combined to produce the goods and services the people want.

ECONOMIC CONCEPT III

The quantity and quality of the goods and services an economy can produce depend on the quantity and quality of its productive resources, the extent of specialization, and technological progress.

ECONOMIC CONCEPT IV

If people are to specialize they must also be able to exchange what they produce for what other people produce. This is done by buying and selling in markets. A market may be local, regional, national, or world-wide.

ECONOMIC CONCEPT V

International trade takes place because people in one country need and want what people in other countries produce.[24]

In contrast to a separate study of each discipline, an interdisciplinary approach to the identification of concepts was used in the Syracuse project. The resulting list was organized in the three categories of substantive concepts, concepts of method, and concepts of value. The substantive category consisted of 18 concepts, of which the following are illustrative: Conflict, its origin, expression, and resolution; Secularization; Comparative advantage; Scarcity; Input and output; Culture; Social control; Social change.[25] The list was not considered to be definitive, but rather to present significant concepts that were important in several of the social science disciplines.

It is probably accurate to suggest that most if not all of the curriculum revision projects now under way have adopted some conceptual structure as the basis of their new programs. Curriculum centers established under Project Social Studies of the USOE, committees and commissions sponsored by organizations representing the academic disciplines, privately financed projects, Title III projects financed under the Elementary and Secondary Education Act, and new curriculum programs developed by local school systems and state education departments are producing a large volume of materials. The literature emerging from these projects and programs provides statements of objectives in the knowledge category which, while somewhat scattered and uncoordinated, will be useful to those working on this aspect of the curriculum.

Methodology

A second major category of objectives has to do with inclusion of analytical problems and modes of inquiry characteristic of the best of social science method. In social studies teaching, inquiry has long been sacrificed to coverage of data. Not less data, but more on the points selected for study are needed and the relevance of the data for understanding problems and issues should be emphasized. It is the task of the teacher to change to an organizational environment in which students can learn how to select, conceptually organize, and critically evaluate information. Arguments for greater emphasis upon process stem from several factors: the rapid obsolescence of factual knowledge; the arbitrary and often capricious divisions of knowledge; and the recognition that, because schooling cannot anticipate the problems and issues which may face students 25 years from now as adults, we must provide inquiry skills which will aid students to become self-directive. Among others, Oliver at Harvard and Fenton at Carnegie-Mellon University have done effective developmental projects directed at decision-making and the inquiry process.

Increasingly it is believed that a school curriculum which consists primarily of a selection of subject matter for each grade level is exactly the wrong kind of device for teaching constructive decision-making, for learning how to choose the important and relevant material, for recognizing the difference between evidence and mere opinion, for understanding the principle of multiple causation. In today's vast stream of communication from the world at large, little of the child's experience with the larger social, economic, and political world is direct. The individual must rely on imaginative reconstruction to fill in his affective and cognitive structures and to accomplish the development of his socialization concerning these matters. Thus the task of education becomes largely that of developing skills and insights in information selection and information processing. Increasingly man's survival depends on his effectiveness in discriminating among messages arising from distant sources and upon his capacity to make decisions about how and when to respond to incoming information.

For these reasons students need training in such basic study skills as those of reading, organizing, outlining, summarizing, and reading and interpreting graphs and tables. In addition, they should be trained as observers, analysts, evaluators, and policy critics. Skills of selecting, organizing, evaluating, judging the value of empirical claims, classifying, categorizing, hypothesizing, and generating inferences and generalizations from data become increasingly important.

An emphasis on inquiry is held by some to be a means for motivating social studies learning and making social studies content "come alive" for students. Thus the report of a conference sponsored by the Center for Coordinated Education indicates that conferees *"placed great emphasis upon the need to achieve relatedness and relevance between the social studies curriculum and the student, and as a body they supported the problem-solving approach as the most probable means to meaningful teaching and learning in social studies."*[26]

However, while substantial agreement may exist concerning those objectives related to inquiry, there is not similar agreement concerning the meaning of the term. To some there is an inquiry process which is very close to a method of scientific thinking. To others there are various forms of inquiry or modes of inquiry. Schwab recognizes these differences. *"The diversity of modern structures means that we must look, not for a simple theory of learning leading to one best teaching-learning structure for our schools, but for a complex theory leading to a number of different structures, each appropriate or 'best' for a given discipline or group of disciplines."*[27]

Inquiry as Historical Analysis. To Fenton, analytical questions lie at the heart of the historian's process of inquiry.

> *Historians control their inquiry primarily through the use of analytical questions. . . . Notice that I did not say a list of questions. Each historian has his own list which has grown out of his life experience. . . . Each historian approaches an investigation with questions to put to his data. . . . The analytical questions which a historian asks exert substantial*

control over his inquiry. They are the principal sources of his hypotheses.[28]

Inquiry in this sense consists of framing analytical questions, forming hypotheses, gathering evidence, testing credibility, and examining frames of reference.

The group working at Carnegie-Mellon has identified the "steps in a mode of inquiry" as consisting of:

1. *Recognizing a problem from data*
2. *Formulating hypotheses*
    - *2.1 Asking analytical questions*
    - *2.2 Stating hypotheses*
    - *2.3 Remaining aware of the tentative nature of hypotheses*
3. *Recognizing the logical implications of hypotheses*
4. *Gathering data*
    - *4.1 Deciding what data will be needed*
    - *4.2 Selecting or rejecting sources on the basis of a statement of logical implications*
5. *Analyzing, evaluating and interpreting data*
    - *5.1 Selecting relevant data from the sources*
    - *5.2 Evaluating the sources*
        - *5.21 Determining the frame of reference of the author of a source*
        - *5.22 Determining the accuracy of statements of fact*
    - *5.3 Interpreting the data*
6. *Evaluating the hypothesis in light of the data*
    - *6.1 Modifying the hypothesis, if necessary*
        - *6.11 Rejecting a logical implication unsupported by data*
        - *6.12 Restating the hypothesis*
    - *6.2 Stating a generalization*[29]

Inquiry as Economic Analysis. It appears that Lovenstein and Senesh use inquiry in a somewhat different sense in the teaching of economics. Lovenstein presents an approach using inquiry:

The basic approach in the Ohio State materials is to demonstrate the value of structure in the teaching of economics. By structure is meant (1) the division of the subject into its major categories and (2) the basic analytical themes which run through the entire subject. It is suggested that a meaningful approach is to divide economics into three groups of ideas: (1) scarcity and basic economic decisions; (2) the flow *of goods and services and the flow of money; and (3) the coordination of economic activity. The basic analytical themes are (1) marginal analysis, and (2) institutions. . . . The emphasis on the structure of the subject will help the teacher and student in the following ways:*

1. *To recognize the value of a disciplines analysis.*
2. *To rediscover the economic concepts in an orderly unfolding manner.*
3. *To demonstrate reasoning about economics.*
4. *To relate economic analysis to economic policy.*[30]

Senesh suggests that we should provide students with the tools with which they may discover and understand new ideas. Accordingly the emphasis must not be on facts but on methods, on the analytical tools that will enable students to understand the design that underlies the facts. Senesh suggests five fundamental ideas underlying all economic knowledge: (1) scarcity, (2) specialization, (3) interdependence, (4) market, (5) public policy.[31] It would appear that Senesh uses scarcity, specialization, interdependence (which many authors would list as basic concepts) as tools without which economic analysis is not possible.

Inquiry as Method. A third sense in which methodological concepts are used is represented by the approach developed in the Syracuse Social Studies Curriculum Center. Drawing upon working papers prepared by scholars from the several traditional social science disciplines as well as other related fields such as law and psychiatry, the center staff produced a list of methodological concepts regarded as basic to social science structure. The keynote to this study was delivered by Tumin at a conference on "Needed Research in the Social Studies":

One does not teach social science either as a method or as something else. It seems to me one teaches social science, and, in the process, one unavoidably teaches method. That is, one raises issues and questions regarding social behavior. One then asks what one needs to know in order to be able to answer questions. One then formulates hypotheses that direct one's attention to probably relevant factors. One then concerns oneself with the ways in which these hypotheses can most satisfactorily be tested. One then pursues these methods of inquiry, collects the relevant data, analyzes them, and asks what the data have to say about the hypotheses, and, in turn, what has emerged regarding the question with which one started. At every point along the line in the consid-

eration of any substantive question, methodological considerations are of the highest relevance, and vice versa.[32]

Developing this approach, the Syracuse group attempted to get at the broad methodological concepts which cross the lines of all disciplines. It was argued, for example, that students should learn to recognize that causes are seldom simple one-to-one relationships, but that there exists a principle of multiple causation, that there are likely to be multiple consequences, and that there is feedback and interaction among causes and consequences. Students should acquire a respect for evidence as contrasted to mere opinion, should develop attributes of objectivity and skepticism, and skills of observation, classification, analysis, synthesis, interpretation, and evaluation. Recognizing the broad applicability of historical method and the geographic approach, these methods were included among those listed in the Syracuse schema and pupil material was developed to assist in their acquisition.

Facing Alternative Value Choices

Current emphasis upon empirical data and scientific method in the social sciences and upon inquiry in the social studies has tended to obscure, or even to eliminate affective goals in the teaching of social studies. The early emphasis upon teaching history for moral values for religious training and for patriotism, and the attention placed upon "development of rich many-sided personalities equipped with practical knowledge and inspired by ideals" have tended to disappear in social studies literature.

Emphasis upon scientific modes of thought, the focus upon processes of social science thinking, the development of structural concepts of the disciplines and their relationship to the student's real and vital concerns have tended to shove effective goals into a secondary position, or even to deny that the school should have a role in teaching values. Some of the dilemmas that must be faced in making decisions about values as goals are well stated in a recent conference report:

Who is to determine just what values are? Do we have an obligation to make inquiries about the beliefs, attitudes, and values people ought to hold? Should we discuss the contrasts between the principles men profess and the principles evident in their conduct? How far do we wish to go in studying beliefs, attitudes and values in the context of alternatives? Are we prepared to accept sweetly diluted discussions of difficult social problems or are we going to insist upon the truth about hard core problems?

Is it appropriate to induce belief on the students' part in the strength and rightness of the society to which they belong?[33]

Even a definition of values is subject to argument. It would probably be relatively easy to reach agreement upon such value concepts as dignity of man and empathy. To achieve consensus among teachers beyond a relatively short list would be difficult. It is also clear that certain concepts which would normally be classed as methodological such as objectivity, skepticism, and respect for evidence are also value positions.

While the determination of affective goals is highly controversial, it is clearly impossible to separate entirely scientific study from policy formation. Publicly supported research is carried on in areas of public health, economic growth, conservation and arrangement of natural resources, and housing and urban development. Here scientific research is mobilized for limited policy goals. Odegard commented that in his judgment the notion of a pure science unalloyed by considerations of policy or purpose is pretty much of an illusion. *"I suspect that even scientists dedicated as they say to knowledge for its own sake, are concerned to create and maintain a society whose values, institutions and procedures are not incompatible with scientific reason."*[34]

The adult, as citizen, is expected to render informed and thoughtful judgments on such issues as foreign policy, school integration, divorce, labeling of food products, and capital punishment. As teachers, and as citizens, we need to be clearer than we now are about the place of values and policy decisions in the teaching of the social studies. Do teachers and students of society simply have the obligation to transmit the values of society as they are? If so, just what are those values in our highly diversified culture? Is it possible to look at and understand any given set of values and attitudes without also considering alternatives to them? Can we teach children to engage in inquiry and discovery and have them refrain from pushing their questioning to the point of asking what ought to be?

If we are going to develop a concern for recognition of alternative choices when we consider the value of private property in our society, should we also consider the views held by members of the Chinese Communist party on this subject? If we do not concern ourselves with such value alternatives, can we claim that we are preparing students for effective living in their communities? Are we forced to accept the Kiplingesque aphorism that East is East, and West is West, and never the twain shall meet, which has been revised to read "Fact is Fact, and Value is Value, and never the twain shall meet?"

Fortunately, it does not appear that the answers to the questions suggested above need to be stated in black and white. There is need for reaffirming societal goals which are widely shared. We need to identify certain norms of our society, such as equal protection of the law. In each instance we need to make these goals more precise and reduce the norms to less ambiguity.

Probably, it is impossible rigidly to separate knowledge, methodology, and values. Scientific method is not only a method, it is a value. Concepts of objectivity, respect for evidence, and skepticism are not only attitudes essential to the scholar, they are values. Empathy is at once a substantive and a value concept.

Perhaps a reasonable position in this controversial field would be to stress the process of making conscious choices among alternatives. This was the conclusion reached by participants in a recent conference in which the problem was discussed:

> *It is essential that we institutionalize a set of mind that includes: (1) a recognition that human affairs are endlessly problematic, (2) a realization that humans must, nevertheless, take stands and move forward on policy decisions, (3) a provisionality and caution in the defense of stands taken on the basis of imperfect information, (4) a continuing support for the always needed research into always present and emerging problems, and (5) a constant vigilance over our assumptions and the so-called "facts" we accept.*[35]

Most writers in this field subscribe to the position that we should aid students to develop the ability to face alternative value choices and to reach value positions. Some go further and contend that we can and should teach values. For example, Scriven argues that *we can justify teaching values (which we already do) and we can justify particular values to teach. . . . Moral behavior requires moral motivation as well as moral insight and the mainspring for that is identification with others, empathy, sympathy.*[36] He suggests that these values can be taught, not by parroting the results of cognitive research, but by role-changing games, by tests of prediction skills, by use of highly graphic audiovisual material, and by direct field experience supplemented by interviews and discussions.

Human behavior may be considered a function of perception or of the exploration and discovery of personal meaning. Thus learning may be a matter of discovering personal meaning, and teaching may be a process of helping the individual develop personal meaning. The teacher in the classroom should be concerned with the beliefs, attitudes, feelings, and values of the student. In this context it may be important that students express beliefs, values, and attitudes without fear of criticism or ridicule; discover and examine alternatives to issues; interact with each other; discover that there is more than one point of view or frame of reference; and consider what it is they value.

Certainly the school has a role as an institution to meet societal expectations for the transmission of certain cultural, social, and political values. Typical among these would be empathy and mutual respect and fidelity to democratic process. These appear not only as direct results of instruction, but are transmitted by the very cultural atmosphere of the school. In introducing such values, educators must be constantly alert to the right, even the obligation of students to question the assumptions upon which these value judgments are based. It should also be the role of the school to inquire into the sore spots of the society and to provide the kind of value-education that frees the learner to make his own value choices and to choose among alternatives. If this end is to be achieved, the learner must be equipped with such intellectual skills as critical doubt, the ability to read and listen skeptically, and the ability to recognize assumptions that are not explicitly stated but that underlie particular value positions.

The development of values should be and is listed among the purposes of social studies programs. One need only examine statements of goals contained in syllabi or visit social studies classes in elementary and secondary schools to observe that attempts are made to develop a sense of morality regarding such ideas as justice, honesty, truth, and trust. Objectives such as the following are also included: development of a sense of involvement in and sensitivity to the reality of the human condition; empathic recognition of commonalities in human behavior; development of an awareness of ethnocentric bias; development of a capacity to expect, recognize, and adapt to social change; development of capacity to experience and accept complexity and ambiguity. As long as teachers attempt to transmit an understanding of and loyalty to the democratic heritage, to develop standards of moral and ethical conduct, to plan classroom interaction strategies calculated to result in empathy, to sensitize students to an awareness of public issues, and to develop skills which are useful in facing alternative value choices, it is disingenuous to imply that values are not being taught.

THE SELECTION OF GOALS IS PRIMARY

At least two levels of objectives need to be identified: (a) general or overall goals that set direction for the total program, and (b) at a more specific level, behavioral goals that provide direct guidance for selecting appropriate content, materials, and activities. Obviously, there must be consistency between the goals at these two levels. There is also need to insure that the goals which are established are comprehensive, that important objectives will not be neglected; that is, a total system of goals should be established.

General Objectives

An excellent illustration of over-all goals that indicate general direction was worked out by a group sponsored by the Foreign Policy Association as it planned for research and development in world affairs education:

1. *The development of the capacity to think conceptually and comparatively in respect to dimensions of similarity and variation among the objects of world affairs education, e.g., societies.*
2. *The development of an understanding of and skill in:*
   - *a. The framing of pertinent questions.*
   - *b. The formulation of propositions and hypotheses.*
   - *c. The distinguishing of descriptive, explanatory, predictive and value claims.*
   - *d. The logical and empirical evaluation of the validity of different types of claims.*
   - *e. The use of models of inquiry and problem solving.*
3. *The development of a sense of involvement in and sensitivity to the realities of the human condition, e.g., global inequities in the distribution of such human values as wealth, well-being, education, security from violence, etc.*
4. *The development of a capacity for the empathic recognition of commonalities in human behavior amidst cultural, social and situational diversity.*

5. *The development of an operating awareness of the inevitability of ethnocentric bias in our own and others' perceptions and interpretations of the international scene.*
6. *The development of a fund of more or less objective, "value-free" concepts and language in which to think and communicate about the international environment.*
7. *The development of a capacity to expect, recognize, tolerate, adapt to (and for the most part) encourage social change.*
8. *The development of a capacity to recognize and tolerate complexity and ambiguity.*
9. *The development of a capacity to experience multiple loyalties and identifications.*
10. *The development of a capacity for "independent study," for continuous learning outside of the classroom.*[37]

A second example of general objectives that provide direction was developed by the group at the Lincoln Filene Center at Tufts University, working in the field of democratic human relationships. The following are listed as among the purposes of the instructional materials being developed at the Center:

1. *Promotion of a more positive group-concept for minority groups and a more positive self-concept for members of such groups.*
2. *Reduction of negative stereotypic thinking by all members of the society which would lead to a diminution of discrimination in overt behavior and prejudice in covert behavior.*
3. *Realization by all students of the value of education in terms of maximizing one's learning potential and enacting patterns of responsible and positive citizenship behavior.*[38]

The authors conclude their presentation of broad objectives as follows:

In brief, we hope that our material and teaching strategies will advance the positive aspects of diversity and encourage young people not to assign negative images or consequences to others who have different physical or behavioral characteristics.[39]

Specific Objectives

While broad goals such as those in the foregoing examples are essential, they do not provide direct guidance for day-to-day operations in the classroom. To serve this function we need specific objectives that are stated in behavioral terms, i.e., in terms of *what students will be able to* *do if the objectives are realized.* Mager has indicated the importance of behavioral goals in this passage:

> *He (the teacher) must first decide upon the goals he intends to reach at the end of his course or program. He must then select procedures, content, and methods which are relevant to the objective, cause the student to interact with appropriate subject matter in accordance with principles of learning, and finally measure or evaluate the student's performance according to the objectives or goals originally selected. . . . If we are interested in preparing instructional programs which will help us reach our objectives, we must first be sure objectives are clearly and unequivocally stated.*[40]

Once general goals are agreed upon and translated into specific behavioral objectives, the selection of content, instructional materials, learning strategies, and procedures for evaluation become clear. This relationship is illustrated by Johns in a paper, "History And The Historian," which she prepared for the Social Studies Curriculum Center at Syracuse. The staff had previously identified the historical method as among the tools which should be developed through social studies teaching. Johns undertook the task of preparing reading materials for secondary school students based upon the historical method. Her first step was to develop the following list of specific objectives which delineate desired student performance.

General Objectives: *To develop an understanding of history as a constantly moving process and of the historian's part in this process.*

Specific Objectives: *Upon completion of this unit, the student should be able to:*

1. *Distinguish between primary and secondary sources.*
2. *Recognize the various factors which influence the historian's point of view.*
3. *Define or recognize in their historical context the terms used in the unit.*
4. *Infer the historian's point of view from selected portions of his work.*
5. *Recognize some of the ways by which bias and prejudice in a historical account may be detected.*
6. *Demonstrate familiarity with the methods by which a historian determines the authenticity of evidence.*

7. *Cite some general rules which incline a historian to look with favor upon the credibility of a document.*
8. *Evaluate primary sources with respect to their credibility.*
9. *Demonstrate a knowledge of the questions raised by historians in evaluating historical accounts.*
10. *Distinguish between statements of fact and hypotheses in historical accounts.*
11. *Distinguish between a fact and an expression of opinion.*
12. *Given a specific incident, relate the procedure a historian might follow in trying to find out how and why it happened.*
13. *Differentiate between the immediate cause of a historical event and underlying or remote causes.*
14. *Enumerate and explain the reasons why history continues to change.*
15. *Write a brief summary explaining the uses of history.*
16. *Recognize details which are important in supporting generalizations and those which are unimportant, or do not uphold the general statement.*
17. *Demonstrate a tendency to suspend judgment when the evidence is incomplete.*
18. *Avoid over-simplification of cause-and-effect relationships.*
19. *Raise questions which indicate a wholesome skepticism in interpreting historical material.*
20. *Appreciate the work of the competent professional historian.*
21. *Use the historical method in analyzing present-day problems.*[41]

A listing of objectives such as these provides direction for the selection of content, the learning exercises which are provided for students and the evaluation of student achievement.

The student's progress toward these goals can be measured by providing an opportunity for him to perform the specific operation that is indicated. For example, his ability to distinguish between primary and secondary sources (objective #1) can be checked out by presenting examples that the student has not previously examined and asking him to classify each one as a primary or secondary source.

Another example of specific objectives stated in behavioral form is excerpted from 17 such objectives that are listed for the unit, "Colonial Living Leads to Independence," in the curriculum guide for grade five that was developed by the social studies committee of the Colorado Springs Public Schools.[42]

The fifth-grade child:

—after studying a relief map of the Atlantic coastal states, locates and labels the mountain ranges, rivers, bays, fall line, and the Grand Banks and discusses how the land affected the settlement and growth of the colonies.

—given available resources dealing with the London Company, gives reasons for the development of the first permanent English settlement in America.

—given a list of references, reads about the first year of the Pilgrims' colonization and compares and contrasts the Plymouth Colony with the colony at Jamestown at the end of the first year.

It is evident that stating objectives as behaviors, as in the foregoing examples, conditions the selection of content and the learning exercises which are provided for the students, as well as making it possible to evaluate student achievement by observing his performance of the operations indicated by the behavioral goal. Such objectives may be shared with students, or worked out cooperatively with them; when this is done, both students and teacher have a clear understanding of the anticipated results.

Stating objectives in behavioral terms is a difficult and time-consuming task, requiring careful analysis of the overall goals into which the specific objectives should feed. The difficulties are not insurmountable, however, and the guidance for instructional planning and student learning that can result from behaviorally stated objectives is well worth the effort.

A Total System of Goals

As the process of establishing goals at both the general and specific levels is carried on, the criterion of comprehensiveness must be applied. Otherwise important objectives may be overlooked and opportunities to plan for two or more objectives concurrently may be missed. Taxonomies have been developed that provide systematic analyses of educational objectives. These comprehensive, classified listings are important sources to be consulted as a total system of goals for the social studies program is formulated.

Perhaps it is significant that the first major attempt to prepare a comprehensive classification of educational objectives, or a total system of goals, was undertaken by a group of college and university examiners who were primarily concerned with evaluation. The committee identified three domains of educational objectives: the cognitive, the affective, and the psychomotor. Two volumes, one dealing with cognitive goals and the other treating the affective realm, have been published.[43]

The authors of *Handbook I: Cognitive Domain* illustrated the need for analyzing and classifying educational objectives by citing and commenting on three goals from a widely circulated statement of objectives:

> "*A. to understand the ideas of others and to express one's own effectively,*
> B. *to acquire the knowledge basic to a satisfying family life,*
> C. *to acquire and use the skills and habits involved in critical and constructive thinking.*"
>
> *All of these would appear to represent desirable outcomes of learning. However, they are such broad objectives that the kind of learning experiences that might be appropriate are far from clear. At this level of generality one would have great difficulty in determining the type of evaluation evidence which could reveal whether or not students have actually developed the necessary competence.*[44]

In *Handbook I: Cognitive Domain,* a hierarchy of cognitive objectives was recognized. It consists of six major categories: (1) knowledge, (2) comprehension, (3) application, (4) analysis, (5) synthesis, and (6) evaluation. Sub-classes are identified for each category and sample objectives are given for each sub-class. A condensed version of the treatment of the category, "analysis," as it appears in the appendix of *Handbook II,* will illustrate:

4.00 ANALYSIS

The breakdown of a communication into its constituent elements or parts such that the relative hierarchy of ideas is made clear and/or the relations between the ideas expressed are made explicit. Such analyses are intended to clarify the communication, to indicate how the communication is organized, and the way in which it manages to convey its effects, as well as its basis and arrangement.

4.10 Analysis of Elements
    Identification of the elements included in a communication.
        The ability to recognize unstated assumptions.
        Skill in distinguishing facts from hypotheses.

4.20 Analysis of Relationships
    The connections and interactions between elements and parts of a communication.

Ability to check the consistency of hypotheses with given information and assumptions.

Skill in comprehending the interrelationships among the ideas in a passage.

4.30 Analysis of Organizational Principles

The organization, systematic arrangement, and structure which hold the communication together. This includes the "explicit" as well as "implicit" structure. It includes the bases, necessary arrangement, and mechanics which make the communication a unit.

The ability to recognize form and pattern in literary or artistic works as a means of understanding their meaning.

Ability to recognize the general techniques used in persuasive materials, such as advertising, propaganda, etc.[45]

Handbook II: Affective Domain deals with goals that ". . . emphasize a feeling tone, an emotion, or a degree of acceptance or rejection."[46] Here the concern is with types of human response (interest, appreciation, attitude) to content, subject matter, or areas of human experience which seem significant. The categories which were established for the affective domain, with their subdivisions, are:

1.0 Receiving (attending)
  1.1 Awareness
  1.2 Willingness to receive
  1.3 Controlled or selected attention
2.0 Responding
  2.1 Acquiescence in responding
  2.2 Willingness to respond
  2.3 Satisfaction in response
3.0 Valuing
  3.1 Acceptance of a value
  3.2 Preference for a value
  3.3 Commitment (conviction)
4.0 Organization
  4.1 Conceptualization of a value
  4.2 Organization of a value system
5.0 Characterization by a value or value complex
  5.1 Generalized set
  5.2 Characterization

The pattern utilized in treating the cognitive domain is followed in *Handbook II*; illustrative objectives and test items are given for each subdivision of each category. In each sub-class listing, some examples related to social studies are given.

These taxonomies of educational objectives for the cognitive and affective realms thus provide a systematic and comprehensive listing against which to check the goals that should be implemented in the social studies program. They are useful in developing the detailed specifications for desired outcomes that can guide the selection of content and instructional procedures, as well as providing a basis for evaluation of student learning.

THE CONTINUING SEARCH FOR VALID SOCIAL STUDIES GOALS

The urgent need to establish clear, defensible objectives for the social studies program is increasingly recognized. As teacher-scholars continue their efforts to formulate valid goals for social studies in the 70's, they will keep in mind such considerations and forces as those that are discussed above. They will take into account factors that arise from within the school and its pupil population, from current developments in the social sciences, from the dynamics of social change, and from the nature of American society.

The level of development and the needs and interests of the particular pupil population will affect the selection of social studies goals. Prevailing patterns of classroom interaction, the social climate of the school, and the relation of the social studies to other curriculum areas will affect, and be affected by, the goals that are agreed upon. The conditions of contemporary life among children and youth, including the types of activities they are expected to engage in and the problems they encounter, as well as the kinds of opportunities for self-realization that are considered desirable, will condition the selection of social studies goals.

Priorities among objectives will be affected by trends in scholarship in the social sciences. Changing conceptions of the nature and structures of these disciplines will be reflected in shifting emphases among the objectives of social studies instruction in the schools. Thus current concerns of social scientists direct the attention of teacher-scholars to processes of inquiry as leading goals for the social studies program. The accelerating revolutions in technology, communications, and other aspects of modern life also reinforce the emphasis on learning how to learn and on the development of future-oriented thinking as priority goals for social studies.

Finally, as we continue our search for valid social studies objectives, we must always remember the pluralistic and pragmatic nature of American society. Priorities are different from community to community and for different groups within the same community. Goals are a matter of conscious choice on the part of curriculum committees and the teaching staff. Teacher-scholars who seek to identify sources of goals should recognize that viable goals are, at least in part, the result of a political process of compromise and adjustment among community interest groups.

There is no question that identifying valid goals for social studies in the 70's is a formidable task, but it is one that cannot be ignored or shirked. The search for clearly defined and defensible objectives is a first essential step in developing effective social studies programs for the decade ahead.

FOOTNOTES

[1] Weissboard, Bernard. *Segregation, Subsidies and Megalopolis.* Occasional paper No. 1. Palo Alto, Calif.: Center for the Study of Democratic Institutions, 1964. p. 1.

[2] Lerner, Max. "City Lights and Shadows." *The School and the Urban Crisis.* (Edited by August Kerber and Barbara Bommanito.) New York: Holt, Rinehart and Winston, 1965. p. 17.

[3] Bellack, Arno, and Davitz, Joel. *The Language of the Classroom.* New York: Teachers College, Columbia University, 1963. 200 pp.

[4] Mayer, Martin. *Where, When and Why: Social Studies in American Schools.* New York: Harper and Row, 1963. 206 pp.

[5] For an expanded treatment of the history of the teaching of the social studies, see: Tryon, Rolla. *The Social Sciences as School Subjects.* New York: Charles Scribner's Sons, 1935. 541 pp.

[6] Committee of Seven. *The Study of History in the Schools: Report to the American Historical Association.* New York: The Macmillan Co., 1906. pp. 21-26.

[7] Tryon, *op. cit.*, p. 97.

[8] Beard, Charles A. *A Charter for the Social Sciences.* New York: Charles Scribner's Sons, 1934. pp. 96-97.

[9] *Ibid.*, p. 73.

[10] *Ibid.*, p. 94.

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CHAPTER THREE

James M. Becker

Organizing the Social Studies Program

The curricula of our schools have always been in a process of change, but usually change of a limited nature. Some new content replaced some old materials; occasionally a new course was added or an old one dropped. More often than not the new programs closely resembled their predecessors. The process of curriculum change reflected the gradual changes in society itself.

In such a situation, instruction, materials, building design, curricula, organization, and evaluation had fairly clear and relatively easily understood roles. Stability characterized the system: education consisted largely of fixed amounts of knowledge to be dispensed and absorbed in fixed periods of time. Today this is no longer true. Education daily becomes more dynamic and flexible in terms of both processes and objectives. What is most significant is that this is not a temporary condition, but as in the case of an increasing number of institutions in our society, persistent, rapid change has become the rule rather than the exception. It follows that our educational system must be geared to helping students learn to cope with continually changing social environments. The only educated man today is one who has learned to adapt and change; the man who has realized that all knowledge is perishable, that only the process of seeking knowledge gives a basis for security. A reliance on process rather than upon static knowledge seems to be the only sensible goal for education in the modern world. Recognition of this condition is producing a variety of experimental efforts involving a search for new ways of learning as well as serious questioning of traditional purposes and goals.

The increased tempo of innovations and experimentation in the late 1960's is an important factor in curriculum planning in the social studies area. New curriculum patterns, technology, and materials appear more frequently on the educational scene. Computer assisted instruction, television, programmed learning, films, tapes, improved learning by better motivation, more emphasis on "discovery learning," developing creativity, increased recognition of individual differences are among the ideas and devices which have appeared or received increased attention.

Coping with rapid change is no easier for educators than it is for professionals in other areas of work. By and large, however, educators have been slower to respond to technological developments and innovations than have leaders in business and industry. In the social studies, course offerings and curriculum patterns have changed little in the past two decades. Those who urge introduction of new ideas and the use of new materials and approaches have frequently been frustrated by the rigidity of organizational patterns and conventional classroom procedures.

We are convinced that reconstruction of instructional staffs, instructional patterns, and school organization must lie at the heart of any meaningful effort to improve the quality of schooling in this country.[1] This statement by the Subcommittee on Efficiency and Innovation in Education of the Research and Policy Committee of the Committee for Economic Development calls attention to a major obstacle to quality education — outmoded organization. This Committee focuses on the need to employ staff, time, and resources in a more efficient manner than heretofore. It also suggests that the re-organization of instruction offers many possibilities for improving a school's effectiveness.

CHANGING EMPHASES: THE SEARCH FOR NEW BASES OF ORGANIZATION

For many years the self-contained, self-sufficient classroom and the content-specific curriculum were regarded as almost tenets of faith for American education. Today these, along with other long-held, well-established beliefs and practices, are being challenged. The revolutionary task of freeing students from outworn forms of learning seems unlikely to succeed without shattering some of the traditional patterns and structures of education. The citadel involving one teacher and 35 students and the content-specific grade placement of social studies materials has been invaded by such innovations as ungraded schools, simulated environments, educational TV, programmed learning, systems analysis, and experiments with teaching aids. The major challenge is not only that education change many traditional practices, but more importantly that it change its basic purpose.

Emphasis on Concept-Formation and Skills

Advocates of the new social studies are less concerned that students master the content of the subject than that they understand the tools of the discipline. In a world where knowledge doubles each decade, cramming students full of descriptive details, definitions, and generalizations is not viewed as being productive. This situation has been called "the crisis in learning." The individual is being left in greater and greater relative ignorance as available and necessary knowledge is multiplied. What is needed is some way of helping students develop their ability to pick and choose important and relevant data from the ever-changing stream of information that is pouring in on them from the global scene. Content is now seen as a means of reaching a more basic objective: a conceptual scheme broad enough to yield insights and hypotheses which can help students understand and participate intelligently in a rapidly changing world. A basic assumption here is that if the student finds no order or meaning in his world, he learns only that his world is absurd. Phenix suggests that ". . . the only sure way appears to be the one method whereby man's intellect has always brought order and simplicity out of confusing multiplicity of experience, namely, the process of concept formation."[2] Each field is seen as having its key concepts and he who grasps them holds the key to functional understanding. This argues for putting great stress upon the structure of the fields of knowledge as the basis on which to build curriculum.

In keeping with this view the school is seen as having less to do with information-dispensing and more to do with teaching information processing skills. If concept formation and developing and learning to use a selection process are major goals of education, a curriculum consisting of specified subject matter at each grade level is of little use.

In an era of rapid change, both in the world at large and in ways social scientists study the world, rigidity in thinking about knowledge is a much greater handicap than failure to learn specific information. Much of what is presently considered essential information may be outmoded as social scientists carry on research and experimentation, or merely by changing events in the world. A curriculum organized around important concepts and basic skills would not be as greatly affected by change as a curriculum centered on specific content. Significant concepts will be modified as knowledge expands, but they have more lasting utility than particular facts. The skills needed to identify, select, organize, evaluate, and apply relevant information do not change quickly. Furthermore, such a program contributes more importantly to the development of students who are capable of independent learning than a program emphasizing specific subject matter.

In the view of advocates of the "new social studies" a program emphasizing the skills and concepts used by historians and social scientists provides better preparation for participation in a democratic society than programs which merely emphasize specific subject matter. The products of the disciplines are seen as of less importance than the tools of the disciplines. Thus the disciplines are viewed, not as ends in themselves, but as resources for equipping students with modes of thinking, feeling, and acting that will contribute to an effective and satisfying life. This is not possible as long as a major basis for organizing the curriculum is the rigid assignment of content to particular grade levels and so long as teachers treat knowledge as a fixed body of objective fact, a mass of information to which we periodically add.

Selection of Content: Some Criteria

Emphasis on concept development, modes of inquiry, or analytical questions requires that content be seen as a means — a basis for helping students develop approaches and skills which have long-range significance and enable students to continue learning. Such programs are not contentless. In fact, if successful, the student would be expected to utilize far more data than in traditional programs, and to use the data more effectively. No one set body of content, however, is viewed as essential for this purpose. Since it is impossible to include all the materials available for dealing with a topic, one might help students develop a concept such as "leadership" by drawing all the data and examples from ancient or pre-modern societies or one might select all the data from modern societies. In either case, students conceivably might develop valid and useful concepts. However, this serves to illustrate that a topic's usefulness in concept-formation or skill-building is only one guide to content selection. As a practical matter, curriculum builders cannot utilize all the available knowledge in each of the social sciences, all the accumulated experience of mankind, and all the issues in which students have an interest. Some criteria must be established for selecting areas for study. All curriculum builders face this problem. The University of Minnesota's Project Social Studies Curriculum Center has developed a useful list.[3]

(1) Does a topic lend itself to teaching important concepts in the social sciences, particularly those which cut across fields and which are important analytical tools in examining new data?

(2) Is the topic of significance in the modern world? Is it, for example, related to a persisting societal problem, particularly one involving a major value-conflict in our society? Is it related to a significant trend in the modern world? If the topic is concerned with a place, is this place of importance in the modern interdependent world?

(3) Is the topic of particular interest and concern and so significant to pupils at certain grade levels because it gives pupils either an opportunity to examine their own values or provides them with help in coping with personal problems of direct concern to them?

(4) Does the topic lend itself well to the development of one or more of the attitudinal behaviors identified as goals by the staff?

(5) Does the topic facilitate the development of specific skills identified as goals of the program, particularly skills related to methods of inquiry?

Recognizing that content selection is closely tied to grade placement of topics, the Minnesota group added three additional criteria:

(6) *Is the topic suited to the maturity level and abilities of pupils at each grade level? Even if the topic can be taught at that level, is such teaching an efficient use of time? Can it be taught better and more quickly at another level? Are there other important topics which can be understood more easily at that level? Since the difficulty of topics at each grade level is related to the previous experiences of pupils at that level, can some experiences needed as background for this topic be included at earlier grade levels?*

(7) *Can the topic be related to the interests of pupils at that level? Even if pupils do not already have an interest in the topic, is it easy to develop an interest in it early in the study of the topic? Will teaching this topic have a positive rather than a negative effect upon pupils' interest in the social studies?*

(8) *Does the topic fit together with other topics at a grade level to form some kind of coherent theme of study so that pupils will find it easier to organize information into meaningful structures than they would if the topics remained isolated in their minds?*

Note that this list includes student interest, maturity and ability, current significance, and multidisciplinary utility as well as the facilitation of development of particular skills among the criteria.

Changing purposes, objectives, and new ways of learning affect the way education is organized. Classrooms are becoming learning laboratories rather than citadels wherein teachers reign supreme. As Sanders points out in chapter 5, change in education is usually a slow, laborious process; yet the technological revolution in our society seems destined to result in new ways of learning and new patterns of organization in our schools. The search for new patterns is becoming widespread.

The Search for Alternative Organizational Models

The growing agreement among educators, that social studies curricula based on the organization of particular subject matter make a weak or inadequate framework for developing social studies programs, raises a crucial question about the basis on which the curriculum should be organized. The search for such a basis or framework is, like all curriculum development work, a never ending task. No one alternative is likely to satisfy a majority of social studies educators or serve the variety of purposes and goals associated with this area of the school program in our pluralistic society. Since knowledge, as well as inquiry techniques for gaining knowledge, is changing and since learning theories are contradictory at present, it would seem unwise to build a total curriculum upon a particular theory.

The University of Minnesota Project staff argues that curriculum builders must consider multiple factors in making decisions.[4] *"These decisions will vary over time as factors such as society, knowledge in the social sciences, knowledge about learning and motivation, and goals change. Since tactics and materials must be chosen to achieve multiple goals with different kinds of students, choices may not fit into neat, elegant models. . . ."*

Some Ways of Evaluating Organizational Patterns

The curriculum builder, like the architect, selects specific techniques and materials to achieve different purposes at each stage of construction. It is a complicated process. For the present, at least, it is unrealistic to expect that one pattern of organization can meet the varied needs of each pupil.

One scheme for evaluating social studies organizational patterns has been suggested by Nelson.[5] It includes:

(1) Rationality — the pattern should be consistent in structure and have continuity.

(2) New knowledge — provision should be made for infusion of new knowledge from the social sciences and other appropriate fields.

(3) Freedom in inquiry — consistent with age, ability, and maturity, students should be given increasing freedom to inquire into all aspects of social behavior.

(4) Integration of knowledge — interrelationships among the disciplines should be demonstrated.

(5) Utilization of talents and resources — the competence of the teachers should be taken into account as well as the availability of materials of instruction.

(6) Skill development — the development of social studies skills on increasing levels of sophistication should be provided for.

The problem of identifying the major elements in a well-organized social studies program has been dealt with in a series of publications prepared by Joyce.[6] In brief, he includes the following as essential in a sound program.

(1) A clear statement of objectives.

(2) Carefully chosen approaches appropriate to the purposes and goals of various aspects of the curriculum.

(3) A plan for sequence and continuity.

(4) Means of evaluation.

(5) Procedure for change and improvement.

As Price indicates in chapter 2, the lack of agreement on objectives and failure to clearly define purposes have undoubtedly prevented progress in social studies. Despite these conflicting views there has been a great deal of similarity in social studies programs nationwide. The listing below is still a widely used pattern of course offerings.

Grade Level	*Subject Matter*
I	Home, Family, School
II	Community helpers — policeman, milkman, post office
III	City, Town — types of communities, transportation, shelter
IV	Peoples around the world, comparison of communities and areas in the U.S.
V	The Americas — The U.S. and its neighbors
VI	Latin America or Eastern Hemisphere
VII	U.S. History or Eastern Hemisphere
VIII	Civics, Geography, State History or U.S. History
IX	Civics, Citizenship, World Geography or World Cultures
X	World History or World Areas
XI	U.S. History
XII	Problems of Democracy, Government, Economics. (Usually electives)

A major hope among reformers in social studies education is that the many curriculum projects currently underway will provide alternatives to traditional patterns by exemplifying the relationship between objectives, methods, and resources in a more meaningful way, thus enabling local communities to adapt and adopt programs to their needs and potential.

A wide range of alternate patterns of organization are being discussed or tested at present. Few of these efforts are primarily concerned with identifying or selecting content to be taught at a particular grade level.

Skills, concept development, modes of inquiry, or values are much more likely to provide the organizing principles for the new social studies program.

While organizational models for constructing curriculum are beginning to appear, there is no one widely accepted way to construct a detailed curriculum and to put it into practice. The great differences in student abilities and experience, the variations in educational theory and practice from area to area of the country, the disparities in background and experience among teachers and administration, local autonomy and resistance to centralization and standardization all work against the widespread adoption of any single plan. What we can look forward to from the more than 50 social studies curriculum projects is a large, rich body of teaching materials from which teacher and student can select. Any acceptable curriculum plan for the social studies can now have a breadth and depth that will permit wide variation in application.

Most of the new social studies projects do not attempt to answer the question of overall goals and purposes. Nor do they suggest criteria for organizing a K-12 social studies effort. Recognizing that disciplines and data are tools, we must specify what these tools are to be used for, before we have a basis for deciding which tools are most appropriate. Determining goals, needs, and priorities at national, state, and local levels will continue to be a most important and difficult task for curriculum builders.

EMERGING TRENDS AFFECTING DECISIONS ABOUT STRUCTURING THE SOCIAL STUDIES

Assumptions about the future shape of education play an important role in determining goals and priorities in school programs. In considering new patterns of organization of social studies the factors most likely to be significant include the following.

The classroom is likely to become a less exclusive setting for education. Participation in community projects, the direct observation of governmental processes, and foreign travel will become a part of most students' "in-school" experiences. Responsibility for education may be more widely distributed among community agencies and groups, requiring a more precise definition of the role schools can and should play in the whole socialization process.

Interdisciplinary studies supervised and guided by interdisciplinary teams and drawing on a wide variety of talents and resources will be more common. Cybernetics, learning theory, teaching machines, and general systems conceptual framework will speed the learning process.

A pluralism of cultures and values will be found in each school. The examination and exploration of value positions and their consequences will become widespread; no one value system will dominate the school program.

The teaching staff will have differentiated responsibilities and salaries. There will be new positions and roles crucial for carrying out complex tasks required to translate knowledge into practice. Beginning teachers will be viewed more or less as apprentices and be expected to demonstrate considerable promise before receiving advanced certification. There will be extensive change in the social organization of American education.

Technology will be the area of greatest change. The use of data banks, storage and retrieval systems, dial access programs, and television will increase rapidly. Modern technology with its new materials and techniques will provide environmental alternatives to the talking teacher, the book, and blackboard. Technology will enable us to create new educational environments in which the teacher will facilitate learning by putting the student in touch with first-hand experience as the basis for knowledge as well as with resources for acquiring information and skills.

Students will be more impatient of irrelevancies and incompetence in school programs and personnel. Living in a society which has some of the characteristics of a giant teaching machine, students will be critical of school programs which seem to be academic or irrelevant to their lives.

These developments, some of which are already influencing school organization, require social studies educators to develop new patterns for social studies and suggest some of the elements which will need to be included in planning programs for the future.

Technology: A Factor in Organizing Social Studies Curricula

As pointed up by Gibson in Chapter 6, the technological revolution that profoundly altered many of our long-established beliefs and practices is now thrusting itself into the classroom. An extensive array of machines and approaches stemming from this revolution are being tried out experimentally in a number of schools. There is an attempt to solve some of the problems of education by technological means. The technological arsenal has expanded so that it now includes television, learning laboratories, computers, and teaching machines, as well as the more conventional audio-visual devices. Technological innovations are being tested in such diverse areas as school organization, team teaching, programmed learning, individualized instruction, and new school environments. Accompanying these devices has been a program of research into the nature of learning and communication and a growing body of theory stemming from experimental and social psychology, engineering, and related fields.

Despite some progress in recent years, most schools are still furnished with few modern teaching aids, and frequently where they are present they are often little used or are misused. The application of technology to education has been hampered by outmoded concepts of organizing resources for learning, including statewide adoptions of textbooks and one-book-per-pupil practices. The efficiency-through-standardization concept of technology — long outmoded — still pervades the American education system. For example, school television in contrast to commercial television is usually a single channel experience involving a "talking face." Teaching machines and programmed instruction, which are designed specifically for the purpose of individualizing instruction by letting each learner proceed at his own pace, are frequently used in a traditional class structure with its time schedule and logistics, in such a way as to undermine the potential benefits of these devices. These technological innovations cannot be properly exploited in a rigid system where all students must follow an identical schedule.

Too many educators still view technology as an assemblage of gadgets or hardware, rather than as *a way of thinking about certain kinds of problems*: a plan for orderly consideration of talent, functions, and resources and an ordered sequencing of ways to accomplish specified goals — the systematic application of the results of research to educational problems, ie., applied knowledge. When viewed this latter way, the implications for education and curriculum organization are far-reaching indeed. Technology, of course, must always be selected in terms of purpose. The appropriate use of technology in a modern educational system should help young people understand the nature and variety of choices and means associated with their educational goals and teach them to live intelligently in an option-expanding world by choosing wisely among the options.

Inappropriate and unproductive use of technology in education is likely to continue until such time as we make the discriminating use of these increasing options a central aim of education and provide organizational patterns which reflect this aim. Little benefit can be derived from the new teaching approaches or new hardware without parallel changes in school organization. Media should be treated in the context of curriculum and school environment. All learning media should be an integral part of courses of study and developed organically, beginning in earliest stages of program planning. The role of technology in education is now being decided. If educators abdicate their responsibility for making these decisions, they will be made by others. It is vital that educators be involved. Where instructional programs are planned by competent designers and hardware is used by well-prepared teachers, technology may be a powerful factor in achieving educational goals.

A Systems Approach

A major problem for designers of instructional programs is the lack of theoretical bases to provide help in making decisions about strategies and approaches. In the absence of theory, the use of behavioral objectives and task analysis has recently led to experimentation with a systems approach as a way of making schooling more effective. This approach involves the use of systems engineering methods in an attempt to increase the efficiency of instructional programs. It has been described as *"an integrated, programmed, complex of instructional media, machinery, and personnel whose components are structured as a single unit with a schedule for time and sequential phasing."*[7] In other words, an attempt is made to integrate all factors bearing on a particular objective. It is a design which seeks to provide a framework for careful consideration of functions and resources in planning an orderly sequence of activities leading to the achievement of specified and operationally defined goals. Factors to be taken into account include personnel, technology such as television and other audiovisual materials, and other resources that are needed to implement the comprehensive system design.

The first step in designing a learning system is the specification of desired performance objectives or behavioral goals. These are based on the principle that learning is change occurring in the students' behavior and that the change is observable and measurable in terms of performance. The emphasis is on learning, on students' requirements to do so. The format is designed to let the student know (1) what is expected of him; (2) how he will be evaluated; and (3) what means may help him succeed. Subsequent steps include analysis of students' requirements and capabilities and the design of learning strategies, which includes such matters as subject matter content, instructional elements, selection of appropriate instructional media, study of sequencing for best presentation to the student, and definition of relevant criteria to measure performance.

Such learning systems are integrated. They also provide for individualized instruction by considering all available resources in order to obtain the most effective and efficient learning for each individual: instructors, books, audio-visual aids, programmed texts and teaching machines, computer assisted instruction, dial access audio-visual information retrieval, closed circuit TV, and multimedia approaches to instruction. Cost analysis and cost-effectiveness are also involved in the systems design. Learning systems must be tested for accuracy and effectiveness; i.e., did the specified learning actually take place?

The systems approach to instructional design is not at present a well-developed science. In fact, it is primitive in many respects and frequently forces the designer to fall back on intuition and experience. Nevertheless, it is an advance in that it involves the application of rational analysis and control over planning and designing programs of instruction. By arraying ends and means so that a clearer idea of available choices emerges, the program under consideration becomes more manageable. As more educators use this approach and learn to use it effectively, better organization and improved instruction should result. The most ambitious program in this vein to date was launched recently by the Division of Comprehensive and Vocational Education Research of the U.S. Office of Education. Known as the Education Systems for the 70's Project, it will apply to the problems of education the same methodology used in systems analysis in the defense and aerospace industry.

Differentiated Staff Responsibilities

Trump estimates that teachers spend 40-50 per cent of their time in conventional classrooms doing things that might better be done in large groups.[8] In addition most teachers spend a good bit of time in activities which are inappropriate in large groups such as asking individual students to respond to questions, having students give poor presentations of dull reports, or giving lectures on topics students already know. The need for teachers to play a variety of roles is crucial if social studies is to become more exciting and relevant to the student. Teaching needs to be seen in terms of motivating, assigning, guiding, informing, and evaluating, rather than merely as providing information and checking students' ability to memorize.

Large groups, small groups, and independent study require different roles for the teacher and provide needed variation in pace for the student. Small groups, for example, provide opportunities for students to learn group membership roles, to express their own ideas more articulately, to listen to others more closely, to compare and contrast differing viewpoints, to empathize with other students. Independent study, in turn, if guided by a competent teacher, helps the students to learn where and how to locate, select, and organize information.

Teachers must recognize that students, not teachers, "cover the subject." Teachers should stimulate, motivate, and provide opportunities for students to assume more personal responsibility for their learning. An organizational plan in which pupil time is divided among large groups, small groups, and independent study seems to provide a more favorable climate for this goal than does the traditional classroom arrangement of 1 teacher and 30-35 students.

The demise of the self-contained classroom and the disappearance of the self-contained teacher is overdue. In its place schools need to create a free and stimulating environment for faculty and students in which differentiated, flexible ways to organize and utilize time and talent are available to instructional teams.

Although technology, systems approach, differentiated staff responsibilities, and a host of other developments are beginning to affect curriculum planning, the rigidity of school organization still plagues those who urge the introduction of new ideas and use of new materials and techniques. Nonetheless, a rash of new approaches are being proposed.

SAMPLE PROPOSALS AND PROGRAMS

The emergence of new approaches gives curriculum makers a variety of models and patterns to choose from and adapt to the particular considerations in their districts, schools, and classrooms. The programs and proposals presented here are offered as examples of different approaches, not as definitive models.

Three Contrasting Plans

Joyce suggests three curriculum plans, one centering on personal development, the second on citizenship education, and the third focusing on the teaching of the social sciences. He deals with each in terms of objectives, teaching strategies, sequences, continuity, and evaluation.[9]

A Person-Centered Curriculum. The objectives stated for this plan stress the learner's development of understanding of himself, of his own purposes and values, and of his relationships with other individuals, with groups, and with society as a whole. The teaching strategy emphasizes student participation in developing objectives for each unit of work and providing many opportunities for him to explore personal interests. Sequence in such a plan is illustrated by chart A.[10]

Joyce points out that many more topics than those listed would need to be included, and that all of them cannot be predicted in advance; rather they should be introduced by the teacher and students as the program unfolds. Continuity is provided for in this plan by leading the pupil to examine his society and the development of his personal values in a cumulative fashion. By studying social issues and trends that are shaping the world, as well as the changing roles of the individual, the student is helped to seek a meaningful existence.

A Citizen-Centered Curriculum. Here, the stated objectives emphasize the learner's understanding of societal processes and the development of skills of democratic action in solving social problems. The teaching strategies stress cooperative group inquiry concerning societal institutions and conditions; they provide continuing opportunities for learners to practice the skills of democratic interaction and to analyze and work to improve the social dynamics of their own class group. Teachers who work in such a curriculum must be skilled in group process; they must be able to provide an appropriate degree of structure and direct leadership according to the maturity of the learners — more for younger, socially immature pupils and less for the older, more mature students.

The sequence for the citizen-centered curriculum, like that of the person-centered program, will include many topics selected cooperatively by teacher and students. Chart B indicates the kinds of topics that can

CHART A.

Level	*Topic*	*Approach*
Primary School Years	Cultural Universals	Comparative study of families, communities, including the home scene Anthropological concepts emphasized to build base for later study
	Interdependence	Study of factories, communities, own groups; also basis for later study
Intermediate School Years	American Politics	Inductive study of the local political process
	American Values	Inductive study of beliefs: both from documents and from study of the local community
Junior High Years	What is a Person?	Attempt to define what makes a human and what makes an individual
	How We are Different	A study of the ways individuals and cultures develop particular frames of reference
Senior High Years	Ideas that Change the World	Historical studies of communism, democracy, religions, and other movements
	The World to Come	Study of movements that are shaping the future and their impact on individuals

be used to help children gain basic skills and understandings related to effective citizenship and to lead older students to deal directly with socio-civic issues and problems.[11]

This illustrative sequence is characterized by early introduction of and recurring emphasis on group dynamics skills and social science concepts that are basic to study of democratic institutions. As in the other two plans, depth studies replace superficial coverage of broad topics. Four threads run through this program to provide continuity: (1) the group inquiry process and analysis of group dynamics; (2) analysis of demo-

CHART B

Level	*Illustrative Topics*	*Approach*
Primary School Years	The Classroom and the School	The functional analysis of groups
	Families Around the World	Interdependence and division of labor
	A Study of Games	Provides a gentle basis for the introduction to both conflict and cooperation
Intermediate School Years	Analyzing Group Behavior	Introduction to social science methodology Emphasizes ways of establishing facts, drawing inferences, making value judgments
	Our Social Heritage	Study of the evolution of democratic institutions and values
	Government in Action	Study of contemporary social action
Junior High Years	Organizing a Group	Strategies for analyzing and improving group activity (More sophisticated versions can be introduced each year.)
	The History of the United States Senate	A depth study of the practices and history of the Senate
	A Social Problem	Depth study of a contemporary social problem and what can be done about it
Senior High Years	Today's Isms	The study of communism, totalitarianism, socialism, authoritarianism, democracy
	Group Processes	An advanced inquiry into group dynamics
	Social Movements and World Government	Selected social movements and issues in world government
	Conflict and Cooperation in America	The study of public controversy

cratic institutions; (3) use of analytic tools from the social sciences; and (4) a focus on values and controversial issues.

A Social-Science Centered Curriculum. The objectives stated for this plan stress the development of understanding of the frames of reference of the various social science disciplines and the ability to apply their methodologies in analysis of societal issues. Teaching strategies will be varied, include the use of cooperative group inquiry, with a group dynamics laboratory to improve group process skills, and of self-instructional units that will be employed by individual students for purposes of review, reinforcement, and development of concepts in preparation for group units. As social science concepts and methodologies are studied, they will be applied to analysis of contemporary social problems.

With regard to sequence and continuity, as indicated in chart C, there is provision for systematic introduction of social science concepts and methods and of group dynamics skills, to be followed by repeated applications through the K-12 program so that the learner's grasp of these elements will be continually expanded and strengthened.[12]

Joyce comments that this plan, with its stress on the intellectual, would require considerable modification for use with learners who are relatively non-verbal, including most culturally disadvantaged children. He suggests, however, that it would be fairly easy to adapt most of the units for use with such learners because they deal with reality situations that can be observed and felt, and because, when selected depth studies are used instead of broad surveys, relatively long periods of time can be provided for collecting data from a range of sources and analyzing them.

The reader will note that none of the three designs suggested by Joyce assumes that there will be world history or government courses, or sequential courses in American history. Each plan suggests the need to develop a coherent sweep from primary grades through high school. Each expects that fresh content and ideas will be introduced each year, while developing and reconsidering fundamental ideas, skills, and values.

A Tentative Statewide Curriculum Plan

Perhaps the most ambitious effort to provide guidelines for programs emphasizing inquiry skills is the *Preliminary K-12 Social Sciences Framework* released by the California Statewide Social Sciences Study Committee in April 1968. This large scale effort involving more than 200 social scientists produced "an inquiry-conceptual approach to the

CHART C

Level	*Topic*	*Approach*
Primary School Years	What is a Family? An Anthropological Approach	In depth and at leisure, a superficial study of a primitive family (Trobriand Islanders), a Western family (France), and an African family (Bantu)
	What is a Community? An Anthropological Approach	In depth and at leisure, a superficial study of cultural universals in several communities (Trobriand, French, Bantu, Sweden, Thailand)
	What are Tools?	An indirect beginning to the study of civilization; tools, technologies, ideas used by several peoples throughout the development of civilization
	Our Group	The study of ways of having amicable and businesslike groups — study modulated to the character of the group
	Things to Believe In	A study of human interdependence; can relate to culture groups previously studied, family, community, and face-to-face group
	Basic Map and Chart Skills	An elementary self-instructional unit; teaches map and chart making and decoding
Intermediate School Years	Our Political World	A study of decision making in families, communities, and nations
	Our Economic World	A study of economic processes in families and communities; follows "What are Tools"
	The Beliefs of Man	Follows "Things to Believe In"; studies values in primitive and modern communities
	The Political and Economic History of the United States	A self-instructional survey course; readings, films, programs
	Groups at Work	A depth study of group dynamics, including one's own groups

CHART C — continued

Level	*Topic*	*Approach*
	The Social Sciences at Work	Observing methods of validating inferences; the concept of causation, fallacies in reasoning
	Frames of Reference	A study of perception experiments, showing how preconception affects perception
Junior High Years	What is a Society?	A study of two small, well-defined societies as Israel and Ceylon
	A Study of Law	Freedom and authority in Greece (Athens and Sparta), Rome, and twelfth century England
	Urbanization in America	Economic and political factors
	The Political and Economic History of Brazil	A self-instructional unit
	The Political and Economic History of Japan	A self-instructional unit
	My Community	Political, social, and economic aspects; an inductive study
	Group Dynamics and Perception	Laboratory techniques; advanced course
Senior High Years	International Relations	Using inter-nation simulation — several units
	World Law	A study of international organizations, including NATO, SEATO, the UN; using original sources
	Demography	A study of population distribution and dynamics
	Political Belief Systems	Communism, democracy, etc.
	Macroeconomics	An emerging nation, as Nigeria; a small, well-developed one (as Sweden); a huge one (as India)
	Group Dynamics, Caste, and Class	The study of the relation between the inter-nation system of a group and its external system or social matrix
	Collecting and Organizing Data	Self-instructional units

Studies of Man." The guidelines note that the way in which history is learned is more important than the particular historical data. They recommend detached examination of selected historical episodes as essential to the development of the mode of historical inquiry. A concern for attitudes and values is also apparent in the California Guide. In discussing the importance of non-western history, the guidelines note that pure content is of limited use. The development of attitudes and visceral understanding of how other people see themselves and the world around them is seen as the major goal. The California program sets up a model emphasizing inquiry processes which are grouped according to three different modes of thinking. These are identified as analytic, integrative, and policy. (See Chart D.) The studies composing this K-12 program sequence the processes and modes so that by the end of Grade 12 the student should be proficient in all three modes and in inquiry processes belonging to each.

Concepts are another major element of this program. *"From the vast array of conceptual tools developed by the disciplines, a selection has been made of those that have proven most useful for understanding man in society and that seem most relevant to the world that today's children will be living in."*[13] Following the pattern generally proposed by supporters of the concept development approach to curriculum building, most of the concepts in this program are introduced in the early grades and then developed in greater sophistication at selected points later in the program.

The priority given skills and processes is further indicated by the manner in which the third element of the program is described in the Guide — the phenomena, times, and places that provide the context of study. *"Inquiry cannot take place in a vacuum . . . but given the primacy of inquiry-conceptual objectives, the choice of setting is always in terms of these objectives . . . the primary question always is: What setting will be the most effective for practicing the inquiry processes and mastering the concepts singled out for emphasis in that unit of study?"*[15]

A persistent problem in organizing social studies programs is that of trying to insure student progress. In order to exercise and develop his capacities, each successive year should present new challenges to the learner. The Californian curricular pattern seeks to organize its

CHART D

THE MODES AND PROCESSES OF INQUIRY: A SUMMARY LISTING[14]

Analytic Mode

1. Observation: selective
   - 1a. Objects/behavioral patterns
   - 1b. Direct/mediated
   - 1c. Measurement: number/extension/duration; relative/absolute
2. Classification: constructed classes
   - 2a. In terms of physical properties/patterns of behavior
3. Definition: behavioral
4. Contrastive analysis
   - 4a. In terms of identities and contrasts of observed phenomena
5. Generalization
   - 5a. Generating hypotheses
   - 5b. Testing hypotheses
   - 5c. Using models
6. Communication
   - 6a. Using appropriate language
   - 6b. Translating from one language to another
7. Inference

Integrative Mode

1. Observation: comprehensive
   - 1a. Objects/behavioral patterns
   - 1b. Direct/mediated
   - 1c. Measurement: number/extension/duration; relative/absolute
2. Classification: observed classes
   - 2a. In terms of physical properties/patterns of behavior
3. Definition: refined
4. Comparison
   - 4a. In terms of similarities and differences of observed phenomena
   - 4b. With one's own experience
5. Holistic integration
   - 5a. Cultural
   - 5b. Historical
6. Communication
   - 6a. Using appropriate language
   - 6b. Translating from one language to another
7. Inference

Policy Mode

1. Defining the problem
2. Valuing
   - 2a. Identifying relevant values
   - 2b. Examining and refining relevant values
3. Identifying relevant information
4. Generating trial solutions
5. Testing solutions
6. Deciding

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elements so that the student becomes increasingly able to carry on more sophisticated work and a more meaningful discourse.

In broad strokes the program deals with the simplest analytica processes of observation, classification, contrastive analysis, and gen eralization in grades K-5. Behavioral definition is introduced in grade

5 and 6. The integrative mode is the main emphasis beginning in grades 5-6 and continuing through grades 7-9. The policy mode is introduced in grade 9; thus by the end of grade 9 all of the inquiry processes involved have been developed and practiced.

Chart E summarizes the elements of the program by blocks of grades.[16] The left hand column lists the more critical inquiry processes, the middle column the key concepts, and the right hand column the suggested settings.

CHART E

SUMMARY OF MAJOR COMPONENTS IN THE K-12 PROGRAM

The objective here is to show children that there is a different and equally legitimate mode of thinking about society and to give them experience of it, but without attempting a sophisticated differentiation of the various processes involved in the integrative mode.

Grade K-2: Mankind

1. What is a man?		
Analytic	Human or man or mankind	Mammals, reptiles
Observation	Reptiles, mammals, etc.	Members of the class
Classification	(Infant dependency)	A Pacific Island community
2. How are man and animals affected by the land they live on?		
Analytic	Landforms and water bodies	Landforms and water bodies
Classification	(Adaptation and ecology)	The students and their community
		Eskimos
		Animals, including prehistoric
3. Why do things have names?		
Analytic	Name [symbol]	Members of the class
Communication	Language, (written language)	Plains Indians or Japanese
		Animals
4. Why are there rules for everyone?		
Integrative	Rules [roles]	Members of the class, their families, community
Comparison	(age and sex statuses)	
	(Division of labor and of authority)	Animals
		A dissimilar human group
5. How are people alike and how are they different?		
Integrative	All previous concepts	Unfamiliar human groups, over space and time
Observation	(Space, time)	
Comparison	Tools [technology]	Significant personalities

CHART E — continued

Grades 3-4: Man and Land: Cultural and Geographic Relationships

1. Why are particular animals found only in certain kinds of environments, while men live almost anywhere?

Analytic Classification Contrastive	Biological adaptation Cultural adaptation: technology, division of labor, (social organization, role)	Indian groups in pre-Spanish California

2. Why do different groups of men develop different ways of living in the same or similar environments?

Analytic Contrastive analysis	Communities: tribal, peasant-urban, rural-urban	A Spanish-American mission-rancho community in Calif.
Integrative Holistic integration	Cultural adaptation: division of labor, occupational specialization, social organization	The early Anglo-American agricultural and mining community in Calif.

3. How does urbanization alter man's relation to the natural environment?

Analytic Generalization	Factors of production Division of labor, comparative advantage Market, trade, middleman Urban functions, location	San Francisco in the 19th century Los Angeles in the 20th century

4. What happens when different groups of men come in contact?

Analytic Classification Integrative	Interaction: competition conflict . . . domination Ethnocentrism, racism Caste	Spanish-Indian interaction, 16th-century Mexico English-Indian-African interaction, 17th-century Virginia

5. What happens when a new group enters an established society?

Analytic Classification Integrative Holistic integration	Migration, immigration Segregation, discrimination Cultural pluralism Social stratification, mobility Caste and class	The Irish in Boston The Orientals in San Francisco

6. How do different groups of men interact with each other in the modern urban environment?

Analytic Classification	Social groups: ethnic, religious, class	Student's immediate community

CHART E — continued

Integrative Holistic integration	Spatial relations and movements of social groups in cities Decision-making in cities	Nearest metropolitan area (most often Los Angeles)
	Grades 5-6: Mankind and Men	
1. What is human about human beings?		
Analytic Definition: behavioral	Culture: Technology, language, social organization, world view	Salmon, gulls, baboons Eskimos, Bushmen, Australian aborigines
2. How do human groups differ?		
Analytic Definition: behavioral	"Race": biological, social Ethnocentrism, racism, and related psychological processes	Brazil, India
3. How is any man like no other man?		
Integrative Holistic integration	Individuality, individualism Value, myth, religion, ideology Expression, creativity Media of expression	Periclean Athens, an African tribal culture, late medieval western European, Confucian-China, Mexico

The conceptual content of Grades K-6 is heavily oriented toward a pan-human understanding of the essential characteristics of man and human society. In Grades K-2 children are asked to think about human communication, man's relation to the natural environment, and social organization, especially rules and roles. The theme of man's relation to the natural environment is more intensively explored in Grades 3-4, along with consideration of the cultural and "racial" similarities and differences among men. Finally, having focused heavily on how men are like each other, Grades K-6 conclude with a consideration of individual differences and creativity in several cultural settings. The settings throughout these early years cover a wide range of human situations, even the California setting of Grade 3 emphasizing the different cultures that have occupied the same natural environment.

In the early part of Grades 7-9, the processes of inquiry in the analytic mode are brought to full development and self-consciousness. In particular the student gains greater control over the difficult analytic process of behavioral definition, as he conceptualizes complex patterns of behavior. Early in these grades the integrative mode becomes important, and through the middle topics the various processes of this mode are elaborated and the analytic and integrative modes are used in conjunction with each other. In the last half of these years the policy mode is introduced and twice used in the

CHART E — continued

full range of its processes. Thus by the end of Grade 9 the full array of inquiry processes will have been developed, and all three of the modes will have been practiced in relation to each other.

Conceptual development in Grades 7-9 is focused on major social constitutions, selected in terms of their relevance to problems of the world in which today's students will be living as citizens. Political and economic systems are studied analytically and comparatively in a pan-human perspective and in relation to each other. This part of the study, occupying about two thirds of these three years, culminates in a study of the contemporary American and Soviet systems and in a policy study of the problem of modernization in the underdeveloped world. The final third of these years is devoted to a study of the urban development, culminating in a policy study of urban problems and urban improvement.

Grades 7-9: Economic and Political Systems and the Urban Environment

1. How do societies decide what is to be done and who is to do it?

Analytic Definition: behavioral	Political system Political culture: authority, legitimacy, political specialization Constitution Decision-making	A tribal society Social groups to which students belong: family, peer group, class, school

2. How do societies decide who gets what?

Analytic Contrastive analysis	Economic system: traditional Needs Production Distribution Decision-making: tradition	Ancient Egypt, England Comparative reference to settings of Topic 1

3. How do market economies develop and function?

Analytic Generalization Integrative Holistic integration	Economic system: market Decision-making: market, private enterprise, profit motive, price competition Economic growth: "take off," gross national product	Woollens trade, England and Low Countries, 14th-16th centuries Anglo-American trade, 18th century English industrial revolution American market revolution

CHART E — continued

4. How do democratic political systems develop and function?		
Analytic Generalization Integrative Holistic integration	Political system Political culture: political values Constitution: civil rights and liberties, federalism, separation of powers, checks and balances Social stratification and mobility	The English Glorious Revolution Massachusetts, 17th Century Boston and the Continental Congress, 1763-1776 Pennsylvania in 1776 Movement for the Federal Constitution and Bill of Rights, 1785-1791
5. How are decisions made in the command political economy of the Soviet Union?		
Analytic Contrastive analysis Integrative Comparison Holistic integration	Political system Constitution: Communism, party bureaucracy Economic system: command Production: socialism Decision-making: central governmental planning	The Soviet Union, selected case studies
6. How are decisions made in the mixed political economy of the present-day United States?		
Analytic Contrastive analysis Integrative Comparison Holistic integration	Political system Economic system: mixed Distribution: labor unionization, welfare state. Decision-making: mixed (market and government regulation), monetary controls, corporation, oligopoly	The United States, selected case studies
7. How can underdeveloped societies cope with the demand for rapid modernization?		
Policy Valuing Testing solutions Deciding	Underdeveloped societies Political modernization All concepts in Topics 1-6	Brazil and Ghana

CHART E — continued

8. How does the emergence of cities change the life of man?		
Analytic Classification Integrative Holistic Integration	The food-producing revolution Urban function City-hinterland interaction	Sumer A modern peasant-urban society
9. How have cities varied in their functions and characteristics?		
Analytic Contrastive analysis Integrative Holistic integration	Urban functions: commercial, political, military, cultural, multiple, etc. City-hinterland interaction	Ancient Rome Renaissance Venice Reformation Geneva Early modern Canton
10. How has modern urbanization changed the life of man?		
Analytic Generalization	Rural-urban shift Intracity patterns of location Metropolis, megalopolis, interaction among urban areas Location, movement, and interaction of urban social groups Natural resources, conservation	Student's own city or nearest large city Comparative reference to other cities
11. How can the quality of urban life be improved?		
Policy All the policy processes	Esthetic quality of the urban environment Urban functions: services, recreational, cultural Decision-making for the city All concepts in Topics 8-10	Student's own city or nearest large city Comparative reference to other cities

Grades 10 and 11 are devoted wholly to an inquiry process only casually utilized previously, the process of historical integration in the integrative mode. In the process of historical integration the students draws upon the whole range of analytic and integrative processes, reinforcing his command of them as he establishes the interrelations of social phenomena over time. The entire array of social-science concepts is similarly brought to bear in this study. But the primary concepts in this integrative mode are specific

CHART E — continued

to the culture being studied and are thus inseparable from the settings. In the first half of these studied the focus is on major aspects of the development of the United States; the focus then shifts to major aspects in the development of the modern (mainly Western) world; and a final unit of study analyzes in depth the history of a major non-Western culture.

Grades 10-11: The Relation of Past and Present

Analytic and Integrative **All processes as they contribute to —** **Holistic integration** **Historical** **Policy** **Valuing**	**Previously developed concepts as they relate to —** **Change over time** **Interrelatedness of past and present** **Interrelatedness of all aspects of a society** **Multiple causation**	**Selected case studies for each Subtopic**

1. How did the United States come to be the way it is, and how is it changing?
- **1a. How did the social structure that the European colonists brought with them change in the course of their life in America?**
- **1b. How did Americans develop a sense of nationality?**
- **1c. How did Americans develop a more democratic political system?**
- **1d. How did the enslavement of Africans produce tension and disruption in American life?**
- **1e. How has discrimination against Negroes continued to generate tensions in American life?**
- **1f. How have Americans tried to cope with growing concentration in business, labor, agriculture, and other aspects of life?**
- **1g. How have Americans been affected by their relations with the rest of the world?**
- **1h. Where, in terms of the major historical themes studied, is American society headed today?**

2. How have national groupings and conflicts affected the life of man?
- **2a. What makes a state a state?**
- **2b. Why have societies sought to impose their wills on other societies?**
- **2c. Why do military establishments so universally exist, and how do they affect the societies of which they are a part?**
- **2d. Have advances in the scope and destructiveness of war been matched by advances in the diplomatic methods for limiting or preventing war?**

CHART E — continued

3. How has India maintained its cultural unity over such a long period and such a diversity of peoples?
    - 3a. How did the principal features of traditional Indian culture take shape and persist?
    - 3b. How has Hindu India interacted with its invaders?
    - 3c. How did traditional Indian culture affect the struggle for independence?
    - 3d. How are traditional and modern elements interacting in present-day India?

Alternate Topic 3. How did China develop mankind's most durable socio-political system, and why has it been replaced?
- 3a. How did the principal features of traditional Chinese culture take shape and persist?
- 3b. How has Confucian China interacted with its invaders?
- 3c. How did the Chinese establish their modern independent nationality?
- 3d. How are traditional and modern elements interacting in present-day China?

In the first half of Grade 12 both analytic and integrative processes are used as students study decision-making in the present-day United States. This unit of study concludes with a policy consideration of the American decision-making systems and of the citizen's relation to decision-making.

The second half of Grade 12 is reserved for capstone elective courses in the social sciences and history. These courses, relatively specialized and conducted at a relatively sophisticated level, are designed to meet the special interests of different student populations and to capitalize on the special interests and competence of different teaching staffs.

Grade 12A: Decision-Making in the United States

1. How do ordinary citizens influence the decisions that affect them?

Analytic		
Definition: behavioral	Political-economic cultures	Selected settings to illustrate how consumers and voters influence economic and political decision-making
Generalization	Political representation and public opinion	
Integrative		
Definition: refined	Political responsiveness to public opinion	
Comparison		

CHART E — continued

2. How are ordinary citizens influenced in making and accepting policy decisions?		
Analytic Definition: behavioral Generalization Integrative Definition: refined Comparison	Decision-making systems Political and economic socialization	Selected settings to illustrate how consumers and voters are influenced

As the chart for the senior high school indicates, grades 10-11 are devoted to the inquiry process not previously emphasized, the process of historical integration in the integrative mode. In grade 12, both analytic and integrative processes are used to study decision-making in the United States today.

None of the patterns outlined here start with a concern about specific content of courses assigned to particular grade levels. Rather, each seeks to develop a coherent pattern that provides for use of fresh content and ideas each year. At the same time provision is made in each case for treatment of basic ideas, skills, and values at several levels and in various contexts throughout the curriculum. These patterns are based on the assumption that different curriculum workers using the same basic framework might come up with a different selection and balance of topics. A number of topics would fit into any specific spot in the basic pattern.

There is a recognition in this plan that decisions about curriculum design involve making judgments in a number of sensitive areas which limit or in other ways influence those decisions. The theoretician may be able to disregard teacher competence, enthusiasm, or intransigence, public pressure, available funds, access to instructional materials, and many other items, but curriculum workers do so at great peril. This alone, to say nothing of the lack of agreement among social scientists, the changing nature of knowledge, and the lack of widespread understanding of the implications of learning theory, argues strongly in favor of flexible patterns of organization which can be readily adapted to local instruction.

Whether a particular way of structuring the social studies would result in major improvements in instruction is impossible to tell at this point. However, the programs cited above do demonstrate the relationship between objectives and curricula. For example, if teaching certain skills is the major objectives of a curriculum then obviously the program must provide students with an opportunity to practice these skills. Citing skills in lesson plans, having students read about skills or listening to lectures on skills are not likely to result in student mastery of them.

SUMMARY

Organizing a program suitable for the modern age involves a number of curriculum reform questions. Among them —

(1) How can one keep informed about and capitalize on the efforts and products of the rash of curriculum projects in the social studies field, as well as the results of research efforts in such fields as communications and learning?

(2) How can present teachers best be prepared to utilize the variety of new approaches to materials spewing forth from current research and curriculum development projects?

(3) What patterns of organization can best deal with the need for individuality and creativity among students and teachers, and at the same time satisfy the demand from parents and public generally for measurable achievement and progress?

(4) How much and what kind of involvement in curriculum planning best utilizes the talents and experience of teachers, supervisors, public and outside consultants?

(5) What kind of procedures are most likely to produce a clear statement of objectives and goals which staff and community accept and support?

(6) How can schools provide for a continuing review of goals, needs, and priorities, and at the same time provide some semblance of continuity in program and security for staff?

These considerations reveal some of the difficulties in breaking existing molds and trying to develop new patterns. They do not suggest all the needed criteria for determining the validity or appropriateness of proposed models for social studies programs. These issues will continue to plague social studies educators as the demand for reform increases.

The demand for results — the impatience of the public, the need for efficiency, and the progress of technology will bring about within the next ten years some major changes in school curricula and in roles among school personnel. It is unlikely that social studies educators or social studies programs will escape major changes. Predicting the exact nature of new programs is impossible; however, learning to cope with rapid social change has become a major factor in education. It follows that students need to develop criteria for discriminating, selecting, evaluating, and responding to useful and relevant data about significant events, trends, and social developments in modern world society.

In such a situation a curriculum consisting of specified subject matter at each grade level is of little use. Students cannot learn to choose relevant information in "content specific" setting.

What students need is a framework for sifting, sorting, categorizing, classifying, evaluating, and choosing among many messages received from the world environment. Content then becomes a means of reaching a more basic objective — developing a conceptual scheme broad enough to yield insights and hypotheses which can help students understand and participate intelligently in society.

The inquiry model seems destined to dominate the new social studies. The question of whether the hopes of the new movement will be translated into programs in a significant number of schools depends in great part on whether flexible organizational patterns to facilitate these changes are developed and widely adopted.

FOOTNOTES

[1] *Innovations in Education: New Directions for the American School.* New York: Committee for Economic Development, 1968. p. 14.

[2] Phenix, Philip. "Key Concepts and the Crisis in Learning." *Teachers College Record* 58: 143; December, 1956.

[3] *Preparation and Evaluation of Social Studies Curriculum Guides for Grades K to 14, Final Report.* Project No. HS-045 (Edith West, Project Director). Minneapolis, Minn.: University of Minnesota, 1968. pp. 123-125.

[4] *Ibid.*, p. 126.

[5] Nelson, Jack L. "A New Direction for the Social Studies Curriculum." *Educational Leadership* 22: 245; February, 1965.

[6] Joyce, Bruce. "What Curriculum Approach for Social Studies?" *Social Studies Extension Program.* Chicago: Science Research Associates, 1966. pp. 28.

[7] Van Dusseldorp, Ralph A. "The Systems Approach." *NEA Journal* 56: 24; February, 1967.

[8] Trump, Lloyd. "Focus on Change: Organizing for Teaching the Social Studies." *Social Education* 30: 163-7; March, 1966.

[9] Joyce, *op. cit.*

[10] *Ibid.*, p. 10.

[11] *Ibid.*, pp. 13-14.

[12] *Ibid.*, pp. 20-22.

[13] *Report of the Statewide Social Science Study Committee, Proposed K-12 Social Science Education Framework.* Sacramento, Calif.: California State Department of Education, 1968. p. 22. (draft version)

[14] *Ibid.*, p. 23.

[15] *Ibid.*, p. 6.

[16] *Ibid.*, pp. 31-38.

CHAPTER FOUR

Marlin L. Tanck

Teaching Concepts, Generalizations, and Constructs

The current trend toward emphasizing concepts, generalizations, and constructs in social studies instruction abstract knowledge promises much but is not without problems. The intent is to equip students with structures of abstract knowledge which have been identified by subject matter specialists. Such knowledge allegedly is not only more useful and longer remembered by itself, but also provides a framework for better organizing, utilizing, and remembering facts. But educators who were themselves schooled under quiz-show curricula where learning knowledge was equated with rote memorization of facts are often frustrated by the concept-oriented curriculum. It is increasingly unfashionable to "just teach facts," but what the newly emphasized concepts, generalizations, and constructs of knowledge are and how they can be taught may not be clear.

tures of abstract knowledge which have been identified by subject matter

The purpose of this chapter is to present some definitions of kinds of abstract knowledge and some descriptions of how such knowledge can be taught. It explains a model of a structure of knowledge in which facts, concepts, generalizations, and constructs are arranged in a hierarchy of abstraction. The chapter also outlines instructional strategies for teaching concepts, generalizations, and constructs as abstractions rather than rote verbalizations.

The model and strategies can be used by social studies teachers to make their own plans for teaching different levels of abstraction as well as to interpret and make better use of materials and plans prepared by others. The chapter is presented in a pragmatic spirit. The reader is invited to try the instructional strategies that are presented. Whether they work for many teachers as they have for some who have tried them is the ultimate test of the approach.

A MODEL OF A STRUCTURE OF KNOWLEDGE

A model is a representation of something. It is a prototype of what that something is, or was, or will be, or should be, or may be like. A model may be a physical mock-up like a scale model of a home or boat. It may be a diagram or drawing like the blueprint for house or boat. Or it may be a verbal description of the house or boat.

Whatever form a model takes, it has several potential uses. It might be used to help understand what the something represented is like or how it works. It might be used to plan construction, or use, or change of the something. It might be used to predict how the something will work under certain conditions.

Knowledge is the something of which this chapter attempts to make a representation or model. Knowledge is regarded as intellectual products that people have developed through their own psychological processes. The products can be classified as different types of knowledge. The types of knowledge can be viewed as being arranged in a structure or organization of knowledge.

This model attempts to distinguish among different kinds of knowledge and to organize them in a structure. It is somewhat artificial. Whether knowledge is actually so grouped and organized by everyone is not entirely certain.[1] The model represents a way that abstract knowledge can be classified and structured so that teachers can more readily plan to teach it and students more easily learn it. The test of the model is whether it helps teachers to plan more effectively for the teaching of selected abstract knowledge and whether it helps students to better learn such knowledge.

ELEMENTS IN THE MODEL

The major elements or parts of the model are different kinds of knowledge or cognitive products called *concepts, generalizations,* and *constructs.* They are related to each other as shown in Figure 1, each more abstract kind of knowledge including the lower levels in its meaning. Each element has characteristics that distinguish it from the others and determine its position in the model.

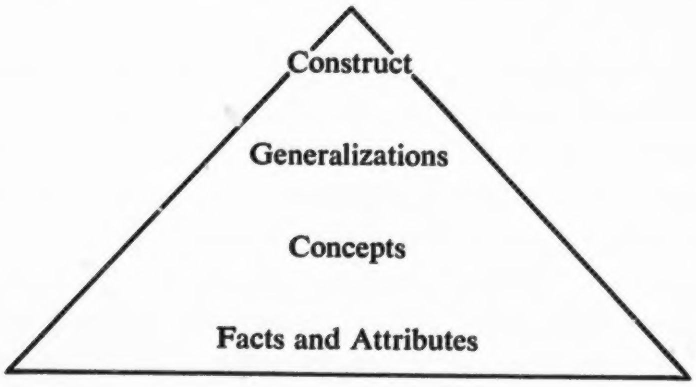


FIGURE 1: Elements in the Model

These kinds of knowledge are essentially a person's own internalized understanding, but each can be represented in a form of communication and demonstrated through observable overt behaviors. Each type is abstract but can be derived or learned from concrete contexts. The distinguishing characteristics, the modes of communication, the related overt behaviors, and the contexts for each kind of knowledge in the model are discussed below.

Concepts

Concepts are generalized bodies of attributes associated with the symbol for a class of things, events, or ideas. Explanation of attributes, classes, and symbols is useful to describe concepts.

Attributes. Attributes are distinguishable characteristics or properties of things, events, or ideas. They are features that can be noted as the same, similar, or different. For example the soil used in growing corn and the trees used in lumbering both have the feature of being natural. A tractor used in farming or a saw used in lumbering are not natural but are distinguished by the attribute of being "man-made."

Farmers and lumberjacks engaged in their respective industries have the characteristic of "working."

Attributes can be based on fact in that they are concrete information that can be verified from reports of others or by one's own direct observation. Whether they are accurate can be proven by checking the reports or by seeing, hearing, touching, tasting, or smelling. That trees are natural and tractors man-made, for example, can be seen or read. That farmers and lumberjacks work can be heard from others or observed directly.

Verbal reports, pictures, and data charts can be used to communicate attributes. Such communications along with observable phenomena or circumstances are the context from which attributes can be learned. Students can learn them either by reception, i.e., getting the information from others, or by their own observation or examination.

Attributes can be "known" at different levels of awareness. Some can be readily stated while others may be understood and used but not easily verbalized. If asked the differences between a horse and a cow, for example, people readily mention things like horses having manes and cows none, but only after considerable digging do they come to attributes like the relative positions of head and shoulders by which they could distinguish the two animals if they had no other information.

Classes. Classes are groupings of categories of things, events, or ideas. Each class includes things with the same or similar attributes and excludes things with different or unrelated attributes. The classes are based on one or several specified attributes, not all possible attributes. The farmer growing corn and the lumberjacks producing lumber might be included in the same class because both have the attributes of being workers or they might be placed in different categories since one has the attribute of using a tractor and the other of using a saw. The soil and the tree might be put in the same class since both have the attributes of being "natural" materials and of being used in production of goods. The tractor and the saw, however, would not fit in the same category as the soil and trees; although they are used in production of goods, thus having that attribute of the category, they are not natural materials but man-made tools or equipment.

Knowledge of classes is common and useful. All people we meet we place in a variety of classes such as male or female, adult or youth, rich or poor, friendly or hostile. Living things are classed as plants or animals, mammal or reptile or bird, wild or domestic. Books are fiction or nonfiction, hard-cover or paper-back, easy or difficult. Thus we classify practically everything in our experience according to specified attributes. That which we cannot readily classify is confusing or mysterious.

Each class typically is part of a set of classes in which a larger class is divisible into smaller subclasses. All of those things used in growing corn and making lumber which we have considered above, for example, fit into the same larger class since they all have the attributes of being used in production. The soil and trees fit into a smaller sub-class of natural things used in production. The farmer and lumberjack fit into the class of people who work to produce. The saw and tractor fit into the class of man-made equipment used to produce.

Symbols. Each class can be referred to by a symbol. The symbol names or refers to the class. It may be a word or sign or gesture or number or other symbol. Whatever it is, the symbol serves as a convenient way to communicate about the class. The class of all things used in production may be conveniently called "productive resources" or "factors of production." Things like the soil and trees might be referred to as "land" or "natural resources." The class of man-made things used to produce might be named "capital." The category of people who work to produce might be called "labor" or "human resources."

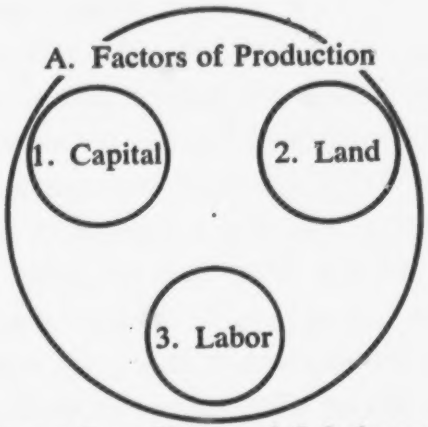


FIGURE 2: Class and Subclasses

These interrelated classes can be pictured as in Figure 2. The large circle, A., Factors of Production, represents all things used in producing economic goods and services. Each smaller circle (1, 2, and 3) represents a subclass of factors of production. These subclasses have the attributes of the large, inclusive class, factors of production, in that all three are used in producing, but each has additional factors that distinguish it from the other subclasses. Land has the distinguishing characteristic of being natural, labor of being people working, and capital of being man-made things. (The area of the large circle not included in the three smaller circles might be considered other things, like technology and government, that have a role in production.)

Examples and Nonexamples. Examples are members of a given class; they are things that have the distinguishing attributes of the class. Nonexamples are not members of the specified class; they are things that do not have the designated attributes of the class. A lumberjack thus is an example of factors of production since he has the attribute of being involved in production; a vagrant is a nonexample of factors of production since he does not have the distinguishing attribute of the class. The lumberjack is also an example of the class of things called "labor," but is a nonexample of land or capital. A tree is an example of land if it is used in production, is a nonexample of land if it is not used in production, and may be an example of capital if it is to an extent a "man-made" grafted, pruned, sprayed, and fertilized tree.

Concepts. A concept is the abstract body of meaning a person associates with the symbol for a class of things, events, or ideas. It is the awareness of the attributes of the class for which the symbol stands. A student's concept of land is his general notion of what productive resources are like. His concept of labor is his abstract notion of what attributes all members of that class have in common.

The concept is abstract in that it consists of meaning associated not with any particular example of the class but rather with all possible members of the class. The concept can be thought of as an idealized model of the class of things. The concept of labor, for example, may be viewed as a mental image having all the general attributes of any particular worker. Thus the concept is the mind's way of generalizing many specific members of the class into one non-existent model example which includes the common distinguishing attributes of all examples. It is a way of finding unity among somewhat diverse class members.

A concept is subjective and internalized. Each person builds his own concept from his own experience. From experiences like noting examples and hearing discussion involving a class each person becomes aware of meanings and attributes. The concept of novel, as an illustration, may have come from classroom discussions plus reading *Moby Dick, Gone With the Wind, From Here to Eternity,* and *Knock on Any Door.* As a result of these experiences each student will come to associate attributes with the symbol for the class, "novel." Each student may associate a different group of abstract attributes. One may associate the attributes "boring and long" while another may associate the attributes "prose and dramatic."

The concept is not a verbalization but rather an abstract awareness of the general attributes of a class. (The reader can demonstrate this feature of concepts to himself by trying to verbalize a description or definition of the meaning he associates with the symbol *dog* so that it includes Great Danes, terriers, Chihuahuas, dachshunds, German shepherds, and mongrels. We would readily include all of these examples as members of the class of dogs but find it next to impossible to express the abstract attributes that allow us to consider such different animals members of the same class.) The concept is an internal mental awareness that affects outward behavior. Whether a student "knows" a concept can be determined from outward actions like the following:

Kinds of Outward Behavior that Show Knowledge of a Concept	Examples of Such Behavior with the Concepts Land, Labor, and Capital
CLASSIFICATION. Given a new group of examples and nonexamples, students will be able to identify examples and nonexamples of the concept.	When given examples and nonexamples *doctor, secretary, tourist,* and *baby* and asked which are labor, the student will select *doctor* and *secretary,* not *tourist* or *baby.* When told about brick making and then asked to list all the examples of land, labor and capital involved, the student will list clay as land, kilns as capital, etc.
APPLICATION. Given a new problem in which knowledge of the concept is useful but not specified, students will use the concept to solve the problem.	If asked what is the difference between lifting water with an Egyptian shadoof and with a gasoline engine operated pump, students would indicate that one uses more capital, the other more labor.

SYNTHESIS. Given motivation, students will be able to create unique examples of the concept.	If asked to imagine he had found a new way to make milk and to tell what land, labor, and capital were involved, the student might tell, for example, that he had invented a machine to make milk from seaweeds and that the seaweeds were land, the machine capital, and the machine operator labor.

Generalizations

A generalization is an understanding of a relationship between or among concepts. It is a chaining or linkage among concepts. It constitutes an assertion that a relationship exists between or among classes. Understandings commonly termed propositions, hypotheses, inferences, conclusions, understandings, and principles are generalizations as defined here. The meaning of such generalizations is typically represented in and communicated through verbal statements like, "Social institutions tend to perpetuate themselves." The statements contain the symbols of the concepts involved in the generalizations and may serve as symbols for the generalizations themselves. Generalizations may also be referred to by single terms or symbols like, "the law of social perpetuation," or more simply, "social perpetuation."

The relationship asserted by the statement, "Land, labor, and capital are used in all production," is an example of a generalization. It involves the concepts, land, labor, capital, production, and economic goods. It asserts a relationship of inclusion — that some concepts (land, labor, capital) are included in all cases of the other (production). "Revolution is followed by a period of reaction," is another example of a generalization. It links two concepts in a time relationship. "Man's progress and survival now depend more upon his cultural evolution than upon his biological evolution," illustrates a complex multiple relationship among several concepts.

To clarify the meaning of generalizations in this cognitive model, they will be assigned the following attributes. (Some of the attributes have already been discussed in the definition above; others are newly discussed in the following paragraphs.)

1. A generalization involves relationship(s) among two or more concepts.
2. A generalization pertains to whole classes. It is broadly applicable to whole categories rather than to specific examples. It asserts that something is true of some or all members of a whole class. "The factors of production are used in all production," meets this criterion, as does, "More capital is used in industrial production." "Dr. Jones is labor," does not satisfy the definition since it involves one example rather than the whole class. "Some labor involves mental effort," is a generalization since it asserts something about the whole class of labor. Thus, like the concept, the generalization is an abstraction referring to whole classes rather than specific instances or examples.
3. A generalization is a higher level abstraction than a concept. As the understanding of an abstract relationship among abstract concepts, it is more abstract than its component concepts. It involves meanings of the concepts included but it has its own meaning which is not the same as and is greater than the meaning of the concepts. It is essentially an understanding of the relationship among concepts which depends upon more than isolated knowledge of each concept.
4. A generalization is based on inference. It is derived from reasoning or suggestion rather than from observation alone. We can readily observe that land, labor, and capital are used in farming and lumbering, but we cannot observe that they are used in all production, all cases of production not being available for observation. Thus the generalization, "The factors of production are used in all production," is reasoned out inductively, extending the scope of knowledge beyond observable data.
5. A generalization involves an assertion which can be judged for truth and validity. Whether what the generalization suggests is accurate and reasonable can be tested. If people can agree on the meaning of the concepts in the generalization, "Land, labor, and capital are used in all production," they can test the generalization by examining appropriate evidence and using systems of reasoning or inquiry. This is not especially true of concepts, definitions, and classes, which are largely arbitrary and subjective.
6. The generalization is not the verbalized statement or assertion but the body of understanding represented. Whether a student can verbalize the generalization may mean little. He may indeed be able to

verbalize but not understand. The best evidence that a student "knows" the generalization will come not from verbalization but rather from overt behavior which results from internal comprehension.

Cases of generalizations. Cases of a generalization are circumstances in which examples of the concepts included in the generalization are involved. They are the context from which generalizations can be learned and proven. Positive cases are instances in which the relationship among the examples is as asserted in the generalization. For example, the paper industry with trees as examples of land, digesters as examples of capital, and lab technicians as examples of labor used to produce paper, is a positive case of the generalization discussed above. Negative cases are situations in which the examples are not related as asserted in the generalization. A man living forever, for example, would be a negative case of the generalization that all men are mortal. Noncases are situations in which the examples may be present but totally unrelated or in which examples of all the concepts are not involved. For illustration, a god living forever is a noncase of the generalization that all men are mortal.

Demonstrating Understanding of Generalizations. The following are some ways in which knowledge of a generalization can be shown in students' overt behavior.

Examples of Outward Behavior that Show Knowledge of a Generalization	Examples of Such Behavior with the Generalization, "Land, Labor, and Capital are Used in All Production."
CLASSIFICATION. Given new cases, students will be able to identify positive, negative, and non-cases.	If asked if land, labor, and capital are used in a newly described industry, the student could answer "yes" and identify the examples of land, labor, and capital.
APPLICATION. Given a new problem in which knowledge of the generalization is useful but not specified, students will use the generalizations to solve the problem.	If given a description of a plan for production using examples of only two of the factors of production and asked whether the plan would work and why or why not, students could identify the examples included as two of the factors and indicate that the plan would not work because the third factor is lacking.

SYNTHESIS. Given motivation, students will be able to create unique cases of the generalization.	If asked how the class could make Christmas gifts for their parents, the students would include examples of land, labor, and capital in their description of production.

Constructs

A construct is an organization of interrelated generalizations and concepts. It is a complex idea or image consisting of a number of correlated lesser ideas or images. It is an assemblage of parts of knowledge which together constitute a unity with an identity and meaning of its own.

The component generalizations and concepts in a construct are not randomly organized. They interrelate in such a way that one lends meaning to the other. They cannot be extensively scrambled and still constitute the same system or construct.

Constructs, as defined in this model, include several kinds of commonly encountered abstractions. Theories like the atomic theory or theses like Turner's frontier thesis fit the definition. Models like this cognitive model, myths like the Protestant ethic, systems like the political system, or philosophies like Christianity may be considered constructs. Each of these is a whole comprised of interrelated concepts and generalizations.

Such a construct could be communicated in a number of ways. It might be communicated through verbalization, as in this chapter. It might be represented in a diagram, chart, or physical mock-up. Or it might be presented through simulation. However it is done, the communication is not the construct itself. The construct is a person's own understanding of the system of concepts and generalizations symbolized in the communication. Such understanding can be referred to and communicated by the use of a name or symbol like "atomic theory" or "Taoism."

To continue with the group of examples of knowledge we have been using, we can note that the concepts land, labor, and capital and the generalization that these three factors are involved in all production are part of a construct. The construct is named "economic system" and consists of an explanation of how man makes a living. It can be communicated by a verbalization and diagrams. It includes a number of other concepts like scarcity and specialization, and a number of other generalizations like, "Scarcity forces all people to make economic choices."

The concepts and generalizations would fit together in a pattern that tries to explain how man makes a living.

Situations. A situation is a set of circumstances in which the system of ideas in a construct operates. It is a context in which the construct can be learned and tested. Cases of the major generalizations and examples of the major concepts in the construct can be identified in the situation as they interrelate in the construct. The way people made a living on the Great Plains in the 1870's for example, is a situation for the construct "economic system." The pattern of living in a current North American suburb is a situation for the construct "social organization." The Iroquois Indians system of governing is a situation for the construct, "political system." In each example the major concepts and generalizations of the respective constructs could be identified in their functional interrelatedness.

Attributes of a construct. A construct in this cognitive model is assigned the following attributes:

1. It is a complex of interrelated concepts and generalizations.
2. The component generalizations and concepts fit together in a pattern. They are not just a collection of ideas but complement one another and add meaning to one another.
3. The construct is the highest level of abstract knowledge in the model. (A structure consisting of a number of constructs, of course, would be more subsuming and abstract but is not included within the scope of this model.) It is furthest removed from the specific facts on which it may be based. It not only includes abstract concepts and generalizations but also understanding of how they relate to each other. The construct has a significance of its own which is greater than the sum of the meanings of its constituent parts.
4. The construct, like the generalization, is derived from inference. Like the generalization, it is an assertion of how things are, could be, or may be that is based on reasoning or imagination.
5. The construct can be tested for truth and validity. If, for example, the model of an economic system suggests that production can be stimulated under certain conditions by cutting taxes, this suggestion can be put into practice or compared to cases of actual tax policies. If the suggestion works out, the validity of the economic model may be better established.

6. The construct is an abstract body of understanding, rather than any communication of that understanding. It is internalized knowledge that can be represented in a communication and demonstrated in overt behaviors.

Demonstrating Knowledge of Constructs: The following are some overt behaviors by which understanding of a construct can be shown:

Outward Behavior Showing Understanding of the Construct	Examples with the Construct, "Economic System"
CLASSIFICATION. Given new situations, students will be able to identify those involving the construct.	If shown films of how the Iroquois worshipped, governed, educated, and made a living, students would be able to identify their economic system and its components.
APPLICATION. Given a new problem in which knowledge of the construct is useful but not specified, students will use the construct to solve the problem.	If told a new President will reduce federal spending and raise interest rates, he could predict what might happen to the supply of money, to prices, to capital investment, and to unemployment, and give reasons for his predictions.
SYNTHESIS. Given motivation, students will be able to create unique situations involving the construct.	If directed to imagine they were rulers of an island and told to describe how they could organize people to achieve full employment and a high standard of living, students could write such a plan including essential elements of an economic system.

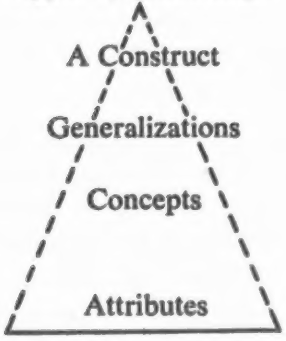
ORGANIZATION OF THE MODEL

The parts of this cognitive model interrelate. The pattern of interrelation has two basic criteria. One is the degree of abstraction and the other class inclusion. The parts of knowledge are arranged from the most specific facts at the bottom to the most highly abstract constructs at the top of the model. Each higher level includes and is constructed of knowledge in levels below it. This suggests that "knowing" each higher level, to an extent, depends upon "knowing" part, if not all, of lower levels. Each higher level, however, does have unique meanings of its own and is more than just the sum of the components of lower levels.

To arrange the examples of kinds of knowledge we have used previously according to the model pattern of organization, we would place the construct, economic system, at the top since it is most abstract and includes the other elements. The generalization that land, labor, and capital are used in all production would fit on the next lower level since it is included in the knowledge of economic system and, in turn, includes knowledge of the concepts land, labor, and capital. This pattern continues until the most specific attributes are placed at the bottom of the model, as shown in Figure 3.

FIGURE 3: The Model of Abstract Knowledge with Examples

A STRUCTURE OF KNOWLEDGE



Types of Knowledge	*An Example of Each Type*
A Construct	Economic system
Generalizations	"Land is used in all production"
Concepts	Body of attributes associated with the symbol "land"
Attributes	The natural quality of trees

Other elements related to the model can be arranged as the cognitive products are, in correlated hierarchies by levels of abstraction and subsumption, as shown in Figure 4. The contexts from which the abstract knowledge can be learned, for example, can be arranged with situations at the highest level since they include cases of generalizations and examples of concepts. In a like manner representative communications can be arranged from least to most inclusive.

Precisely where the dividing lines between levels of the model fall is neither clear nor important. The levels are obviously interdependent. Knowing that a farmer has the attribute of working, for example, depends upon some knowledge of the concept "work." Likewise it is not clear in what instances knowledge of the concepts land, labor, and

FIGURE 4: Correlated Hierarchies for Use in Instruction

Kind of Cognitive Products	Representative Communication	Context from which Products can be Learned	Some Overt Behavior Capacities to Show Knowledge
Construct	Verbalization Diagram Model Simulation Symbol	Situations	Identify parts of the construct in new situations
Generalizations	Statement Formula Symbol	Cases	Identify positive cases
Concepts	Symbol Verbal Definition	Examples	Identify examples
Attributes	Reports Data	Reports Observable Phenomena	Identify items with the attribute

capital is more part of the generalization about production than it is a case of knowing attributes of the concepts themselves. Learning the generalization may well develop some new attributes of the concepts.

What is important about the model is that it can serve some specific functions. It can provide a way to classify and organize a particular body of knowledge. By showing how that knowledge could be structured, it can be used to plan teaching of the knowledge. It may incidently suggest some criteria for selecting the most important knowledge to teach and some ways to define objectives.

USE OF THE MODEL IN INSTRUCTIONAL STRATEGY

The model discussed above sets forth a way that abstract knowledge and correlated contexts and communications can be structured. It may have some intrinsic value and interest of its own, but its prime function is to be used in planning instructional strategies. It is for that function that the model is designed. Some considerations of how teachers can use the model to plan instruction of abstract knowledge follow.

A Critical Point of View

Use of this model in designing instructional strategy may depend importantly upon accepting the point of view that all knowledge is created or invented by people. According to this view, knowledge exists nowhere independent of man's awareness. It does not exist like a new continent awaiting discovery by man; it is rather invented or constructed in man's mind. Man may discover the new continent but he creates his own knowledge of it. From what he sees and hears and feels, from what he reasons and imagines, from what is communicated to him by others, he builds his knowledge of the continent.

Knowledge of the continent is like a map. Both the knowledge and the map were created by man. Both are representations of what man thinks the continent is like. Both oversimplify and misrepresent to an extent what may actually "be" on the continent. Both, however, are highly useful because they help man move about and know what to expect on the continent. Neither is what "really exists" but rather is a representation of the "real" things.

Knowledge, however, is unlike a map in a very important way. A student can get a map from someone else but he must create his own knowledge. A teacher cannot "give" a student a concept, for example. The teacher can provide a symbol, and examples, and perhaps some verbalizations of attributes, but the student must construct his own concept. He must from his own experiences, including those provided by the teacher, assimilate attributes, associate them with the symbol, and thus create his own concept.

This basic point of view that each student must create his own structure of knowledge suggests how the model should be used in instructional strategy. It should be used to identify the parts of knowledge, the related contexts a student can use, and the associations he might make to build his own structure of knowledge. The model itself should *not* be "taught" to the student. He should *not* be expected only to give a verbal description of what is in the model. He should be led to make his own associations among parts of the model and thus create his own structure of knowledge. Whether this has been accomplished cannot be determined so much by verbalizations of parts of knowledge in the model as by the kinds of overt behaviors described above.

The student's creation of his own knowledge is a continuing process. It is a process of adding to and revising a structure of knowledge. A

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third grader who studies the factors of production undoubtedly begins with some prior development of the concept of land. Bringing in new examples and attributes for the concept and a new set of classes for land, labor, and capital, may lead him to add new attributes to his understanding of the concept and to relocate the concept in his cognitive structure. Such augmenting and changing of his knowledge is obviously internal behavior that is detectable only by observing resultant changes in overt cognitive behavior.

A Basic Strategy

The basic strategy for use of the model in planning instruction is to assist students to develop new cognitive products (concepts, generalizations, constructs) by associating related elements in appropriate contexts. If, for example, students know two concepts, they can be led to understand a generalization involving the concepts by learning the relationship between them in selected cases of the generalization. The general strategy can be outlined in the steps below. Variations in the plan can be made to suit different needs and circumstances.

1. Identify the elements of abstract knowledge to be taught and arrange them according to the model.

Much of this step has often been done already by specialists. Experts in the social sciences have published surveys of what they consider the most important knowledge in their fields. Curriculum projects and committees have produced other lists of basic ideas. In some school systems committees have designated concepts and generalizations to be taught in various grade levels, courses, and units. What remains to be done is to classify the identified elements of knowledge as constructs, generalizations, and concepts and to arrange them accordingly. This task may be best accomplished by starting at the higher levels and then identifying related lower levels, since there are fewer constructs and high level generalizations and these subsumers suggest the organization of their lower level components.

2. Set specific cognitive objectives.

This step amounts to deciding what particular elements in the model students should learn. The objective might be to teach a whole construct and all its components or, more simply, to teach a group of important concepts. The decision, of course, is influenced by what students already know. If, for example, they already know some concepts, instruction might start there and proceed to a generalization involving the concepts. Or, if students already know some attributes of a concept, plans might call for adding new attributes to their understanding of the concept.

3. Select appropriate parts of knowledge, contexts, and/or communications useful to achieve the objectives.

If, for example, the students are to learn a particular generalization, identify the concepts involved and the cases of the generalization. If a construct is to be learned, identify situations and communications representing the construct and suited to student maturity.

4. Plan how to get students to associate the different kinds of knowledge to reach the specified goal.

This is the critical step in which learning occurs. The plan must cause the student to interrelate the appropriate cognitive elements in the appropriate contexts so that he creates the abstraction sought. This can be accomplished by leading the student to "see" or understand the relationship in the context of examples, cases, or situations. Understanding the relationship among concepts in several cases, for example, will help develop understanding of a generalization. Visualizing the relationship among several generalizations in a number of appropriate situations will assist in developing understanding of a construct.

5. Plan how to determine whether the specified knowledge has been developed.

This means designating overt behaviors that show that the student has developed the desired internalized knowledge. If, for example, the goal was for the student to learn new attributes for a concept, he should be able to identify examples of the concept with the new attribute and to find or create such examples. The basic strategy outlined above can be varied in four patterns — verbal exposition, demonstration, attainment, and augmentation.

Verbal exposition can be effective with more mature students if they know the concepts that are symbolized in the communication which is used. For example, students can learn generalizations such as the law of supply and demand, or Gresham's law, from verbal explanation, if they know the concepts represented by symbols. The explanation provides a context in which the students can understand the relationships among the concepts in the generalizations. The author suggests that exposition strategies will be improved by using the cognitive model to organize the knowledge represented in verbal communication and by realizing that what the communication must do is lead students to associate cognitive elements in order to develop their own understanding. It is often important to use other strategies to complement or replace exposition strategies if knowledge is to be learned as abstractions rather than mechanically memorized word patterns.

Demonstration strategies involve initial explanation of knowledge, followed by association of related parts of knowledge in appropriate contexts. The concept demonstration, generalization demonstration, and advance organizing strategies explained below are examples of demonstration.

Attainment strategies consist of leading students to develop their own knowledge by associating related kinds of knowledge in context. The concept attainment, cumulative structuring, and induction strategies developed below are examples.

Augmentation strategies add new elements to knowledge already developed. Concept augmentation, verification of generalizations, and periodic development of constructs discussed below are augmentation strategies.

Concept Attainment. This strategy is useful to introduce or to develop basic understanding of a concept. It involves the following steps:

1. Identify these cognitive elements:
   a. The symbol for the concept
   b. Major attributes of the concept
   c. Examples of the concept that have the specified attributes
   d. Nonexamples of the concept

   The major attributes are the basic criteria for the class of things represented by the symbol for the concept. They are those attributes the student needs to be aware of in order to distinguish between examples and nonexamples. They are certainly not all of the attributes of a concept.

   Examples and nonexamples selected should be pertinent to the course and suitable to the students.
2. Present the examples and nonexamples to students and have them identify the major attributes, identifying the examples by concept symbol so that students associate attributes with it.
3. Have students define the concept by listing its major attributes. This step is not absolutely necessary but may be important to clarify and confirm attribute identification.

4. Present more examples and nonexamples and have students tell which are or are not examples and give reasons why. This step may be important to develop association of attributes with the concept symbol.
5. Have the students find and identify new examples. This step is intended to effect reinforcement and assimilation of the concept.
6. Evaluate student learning by seeing whether students can identify examples and nonexamples and can find or create new examples.

These steps need not be precisely as described or follow this exact order. Identification of the cognitive elements, for example, might be followed first by definition of the concept and then by distinguishing examples and nonexamples, in effect reversing the second and third steps.

The following is an example of how the strategy could be used to teach the concepts of land, labor, and capital in third grade social studies.

The symbols for the concepts are the terms, "land," "labor," and "capital." The major attributes are "used in production" and "being natural material" for land; "use in production" and "someone working" for labor; and "use in production" and "man-made" for capital. The examples are land, labor, and capital in New England fishing, Pennsylvania coal mining, Florida orange production, and Mississippi cotton cultivation. Nonexamples are: for land, a lawn, an unused woods, and a mountain; for labor, vacationers and children playing; and for capital, a swimming pool, candy bars, and a family car.

Step two, associating attributes with the concept symbol, is done as students study fishing in New England. Students have previously learned about production of goods and services. They read about lobster fishing and deep sea fishing. The teacher shows pictures of the examples involved and asks questions to bring out the major attributes. He may show a picture of a lobster trap, say that it is capital and ask, "Is this used in the fishing industry?" and, "Is this something people have made?" He may then show a picture of a lobster bed with lobsters in it, say it is called land and ask how it is similar to and different from the lobster trap. After using several examples in this way he might use some nonexamples like a picture of children playing on a beach, indicating they are not labor and asking why not. It is important to use the symbols ostentatiously so attributes are associated with them.

The third step, defining the concept by listing its attributes, is done at the end of the work with the pictures. The teacher might simply ask students to tell what they think land, labor, or capital is or he may use a "gimmick" like giving students cards with pairs of attributes on each and asking whether land, labor, capital, or none of these is described.

Step four, presenting additional examples and nonexamples, is accomplished in studying Pennsylvania coal mining and Florida fruit production. It is simply done by asking students whether examples and nonexamples in the text are land, labor, or capital and having them explain their answers. As they read about an underground seam of coal, for example, the teacher can ask, "Would the seam of coal be land, labor, or capital? Why do you think so?" As they read about a tree-spraying machine in the orange groves, he can ask the same questions. If a book has a picture of a residential lawn or a scenic mountain range, students can be asked whether the pictures show land, labor, or capital, and to explain their answers. The intent of the step is to get students to assimilate and understand the concept and its attributes by associating a variety of examples and their attributes with the symbol for the concept.

The intent of step five, having students find new examples, is the same, but it proceeds to a different variety of behavior. Instead of merely classifying examples and nonexamples that are given them, as in step four, students find or create examples. This might be done by having them read about cotton cultivation and list all the examples of land, labor, and capital they find. It might be accomplished, too, by having them clip magazines and newspaper pictures representing land, labor, and capital, and mount them in scrapbooks or on bulletin boards. Or they could list examples which they find as they view a film or go on a field trip. They might create examples in their own stories or plans for production.

The evaluation step, number six, involves finding out whether students can (a) properly classify unfamiliar examples and nonexamples, and (b) find new examples. Whether they can classify could be established by presenting pictures they have not seen before and asking students to tell whether each is land, labor, capital, or none of these. Or matching items may be used in an exercise where students match the symbols "land," "labor," "capital," and "none of these" to new examples. Whether they can find examples could be determined by presenting an account of production and asking students to list what is the land, labor, and capital involved.

Work with the concept does not end here, of course. Students should continue to work with examples and nonexamples, always picking out attributes and associating attributes and examples with concept symbols.

Concept Demonstration. In this strategy the teacher first explains the concept to the students, and then illustrates and develops understanding of the concept through comparison of examples and nonexamples. It involves the following steps:

1. Identify the same cognitive elements used in concept attainment — the symbol, major attributes and suitable examples, and nonexamples of the concept.
2. Explain the concept by naming it, defining it, describing its major attributes, and, perhaps, comparing it with concepts students already know. The explanation may be oral, written, graphic, or a combination of media.
3. "Show" the concept by presenting a series of examples and nonexamples through oral description, laboratory demonstration, readings, films, reports, field trips, or the like. Begin by giving more examples than nonexamples and with more familiar and simple examples. Proceed to include more nonexamples and to use more complex and remote situations. Point out or bring out through questioning the distinguishable attributes of the examples and nonexamples. Keep the symbol for the concept conspicuously present so that students can associate attributes to the examples with the symbol.
4. To give students practice with the concept, present additional examples and nonexamples for them to classify and/or have students find or create additional examples.
5. Evaluate student understanding of the concept either by seeing whether students can classify new examples or nonexamples given them, find or create their own new examples and nonexamples, or answer questions involving the attributes of the question.
6. Reinforce and develop the concept through an extended period of time by periodically requiring students to distinguish between new

examples and nonexamples or to find or create their own examples and nonexamples.

The steps can be illustrated with teaching the concept of culture to intermediate students. The teacher first provides a short written explanation of culture which students read and discuss. The students are then presented two lists of familiar objects, one of cultural artifacts like houses, electric motors, and lawns, and the other of noncultural things like swamps, lightning, and sparrows. They are told to discuss why one list characterizes culture and the other does not.

More complex examples are then presented in two other lists, one of cultural behaviors like reading, smoking, and believing in democracy, and the other of noncultural traits like digestion, color of the skin, and amount of body hair. Again the two lists are compared, indicating what attributes make one cultural and the other not.

Developmental practice with the concept is accomplished by having students list ten cultural and ten noncultural things in the school neighborhood and bring in pictures of cultural and non-cultural things. Evaluation is done in an assignment in which students are given a list of things and behaviors, each of which they must label cultural or noncultural. Further reinforcement and development of the concept is done by work with examples and nonexamples in a variety of contexts. For example, as the students study ancient Egypt, they discuss which things influencing Egyptian life were cultural and which were natural. As they read in language arts, they sometimes discuss which portions of characters' environments and behaviors were cultural and which were not.

Concept Augmentation. This strategy is useful to expand and deepen students' understanding of a concept of which they already have some knowledge. It is essentially leading students to associate more attributes and more varied and complex examples with the symbol for a concept.

It involves these steps:

1. Identify these cognitive elements:
    a. The symbol for the concept
    b. The attributes and kinds of related examples already known
    c. The new attributes to be learned
    d. Examples that have the new attributes
    e. Nonexamples

2. Present examples containing the new attributes. Have students compare them with the already known examples and attributes, thus identifying the new attributes.
3. Include the new attributes in definition of the concept.
4. Give students practice in identifying, classifying, and finding examples with the designated new materials.
5. To evaluate student knowledge of the new attributes and more complex examples see if they can classify and find new examples and nonexamples.

This concept augmentation strategy can be illustrated here with a hypothetical third grade treatment. It begins with the concept of labor as treated in the illustration of concept attainment above. Students are familiar with the attributes "used to produce" and "people working" and with examples from the fishing, coal mining, orange growing, and cotton cultivation industries. The new attributes to be learned are that labor is used in production of services and that it may use physical, mental, or emotional effort. Examples can be found in professions like doctor, clergyman, and teacher and in the tourist industry.

Identification of the new attributes by comparison of old and new examples can be done with examples from the professions and from industries previously studied. For example, after reading about a doctor's work, the following questions can be discussed:

How is the doctor like the fisherman?

How is the doctor different from the fisherman?

Is the doctor labor?

Does the doctor produce goods, as the fisherman does?

Does the doctor work more with his muscles, brains, or feelings?

Similar discussion could compare attributes of clergymen and orange pickers, and of teachers and coal miners. Following these discussions the teacher could try to get students to include the new attributes in the definition of labor by asking how they can tell if someone is an example of labor or what labor is like.

Practice involving other examples with the new attributes is important to help the student develop the concept as an internalized abstraction. The practice could be done in a number of ways. One would be to work with sub-classes designated by different attributes of labor. For example, students could be shown pictures of workers, professional people, and non-laborers and be asked which are labor, which are producers of goods, which are producers of services, which do physical labor, which do mental work, which do emotional work, and which do not produce at all. If the pictures were on cards the students could actually sort them by subclasses. Other ways in which the practice could be accomplished would be to have the students explain why persons mentioned in a study of tourist industries are or are not labor and to have students clip pictures of examples of labor who do not do primarily physical work.

Evaluation could be done by determining whether students (a) will include examples with the new attributes in classifying mixed old, new, and nonexamples, and (b) seeing whether the students will find examples with the new attributes. The first kind of evaluation could be done by describing a mother doing various things such as paying bills, bathing a baby, sweeping the floor, soothing a crying child, and playing cards with other women, and asking students when she is and is not an example of labor. The same type of thing could be done with pictures of various persons in a community. The second kind of evaluation could be done by reading a story about a community in another culture and asking students to list all examples of labor. If they include persons who produce services and who do mental and emotional work they are probably aware of the new attributes and new types of examples.

Specific Strategies to Teach Generalizations

The basic task in teaching generalizations as defined in the cognitive model is to get students to understand the relationship between or among concepts. The following elements would seem to be useful in the task:

1. The key concepts involved in the relationship.
2. The relation, the abstract association among concepts, or the understanding of how the concepts relate to each other. (Common relations are sameness, similarity, difference, inclusion, exclusion, size, if-then, cause-effect.)
3. The assertion or statement of the relationship, claiming that a relationship indeed exists among the concepts.
4. A problem, meaning a question or realized difficulty that in effect asks what the relationship among the concepts is, or whether it is as asserted.

5. Positive cases, situations in which the relationship among examples of the concepts involved is as asserted.

Some of these elements are involved in each of the following strategies to teach generalizations. The basic plan in all is to get students to understand the relation among concepts by working with cases in which the relationship exists.

Demonstration of a Generalization. Demonstrating a generalization involves three steps. The first is to state and to explain the assertion. If the concepts and relation involved are familiar this may be sufficient for students to understand the relationship. Assimilation of the abstract generalization, however, may require the additional steps. Relatively more abstract and difficult assertions will certainly require the additional steps.

The second step is to demonstrate the asserted relationship among concepts by illustrating it in a number of positive cases. This might be done in a number of ways. The positive cases might be described in a lecture, reading, film, or the like. They might be shown in a "lab" demonstration, in a simulation, or in a field trip. They might be picked out of subsequent discussion and study.

The third step is to have the students demonstrate the generalization to themselves by finding or creating their own positive cases. This step could be accomplished along with, after, or instead of the second step. It can be done in a variety of ways. Students could find and report positive cases in their immediate environment or in news reports. They could find cases in readings, films, lectures, and discussions. They could create their own positive cases by demonstration or simulation.

The demonstration strategy can be illustrated with the generalization that labor is used in all production. The teacher could first state and explain this assertion. Then to demonstrate it (step two) he could use familiar cases already studied, telling, for illustrations, that in fishing there were the fisherman and the lighthouse keeper, to produce oranges there were the pickers and sprayers, etc. To have the students demonstrate the relation to themselves (step three), he could have them list products used in their home and tell who worked to produce them.

Verification of a Generalization. Verification of a generalization is simply presenting the assertion and then working with positive and negative cases to see if the relation is as stated. The assertion may be falsely stated or distorted. The cases may be presented by the teacher, or found or created by the students, or both. If the relation is found to be other than as stated in the assertion, the strategy may continue with qualification or restatement of the generalization and repeated verification.

That capital is used in very little production could, for example, be asserted at the start. Students in small groups could then review production they had studied and list all production in which capital was used and all production in which it was not used. They might add to their lists cases of production familiar to them in their own community. Upon reporting on their lists they would see that there were no negative cases. The teacher might then ask if the assertion was right and how it should be changed. They might then proceed to verify the new assertion by finding other cases.

Induction of a Generalization. This approach amounts to getting students to generalize about all cases from knowledge of some cases. It may begin with a problem or with awareness of a number of cases. However it begins, the end result is concluding that all cases are probably like the cases known. The conclusion is the assertion or generalization.

If students, for example, had been studying the concepts of land, labor, and capital in a number of industries, the teacher could use those industries as cases. He could ask students whether all three factors were used in fishing, orange growing, cotton raising, coal mining, dentistry, and tourism, and to exemplify each case. He could then ask whether they would expect all three to be used in an industry they were unfamiliar with, and what the cases suggest is true about all production. The generalization then could be stated and translated to familiar terms.

This strategy should probably be followed by the verification and/or demonstration strategy to clarify, reinforce, and develop understanding of the relation asserted.

Developing a Generalization Through Problem Solving. An inquiry technique may be used to develop a generalization through problem solving. This strategy begins with the awareness of a problem and the gathering of some information on the problem. As students collect their data, they may encounter cases or generalizations that suggest solutions to the problem. These suggested solutions are hypotheses or tentative assertions. They can be tested by use of the verification strategy described above or by more formal procedures of problem solving, the scientific method, historiography, or the like. All such testing will involve a search for positive and negative cases that support or deny the assertions or hypotheses that have been formulated. The testing will indicate which hypothesis seems proven or supported by positive cases. This assertion may become the generalization that is accepted for further verification.

This strategy can be illustrated in an American history course in which students have been introduced to the concepts of culture and cultural change. In studying the colonial era, the problem may be posed of which culture, a more technologically advanced culture or a less technologically developed culture, will change significantly if the two come into prolonged contact. In a discussion students can list on the board possible answers to the question. Obvious hypotheses would be that the less advanced culture would change much more, that the more advanced culture would change much more, or that both would change significantly. To test the assertions students can find and report cases of contact of French, British, Dutch, and Spanish with North and South American Indians. They can discuss which one of their hypotheses seem to be supported by the most positive cases. That hypotheses may become a generalization for further verification, possibly by finding additional cases in the history of European contact with African cultures.

Each of these strategies to teach generalizations differs in specific steps, but they all have a common approach. All seek to develop understanding of generalizations by giving students experience with cases. All intend that students "see" or comprehend the relation among concepts in the cases and thus come to see or understand the relationship in general. It is important to emphasize once again that it is this understanding of a relationship among concepts which is the generalization. Verbalization may help clarify and organize the understanding but cannot substitute for the generalization itself, or, for many students in many situations, for the cases in which the relationship can be "visualized."

Evaluation of whether students have learned the generalizations from the strategies likewise must focus upon the abstract understanding rather than verbalization. Thus evaluation must rely on testing overt behaviors that depend upon understanding of the abstract relationship. Whether a student "knows" a generalization can be determined from behaviors like those discussed in the chart in the first section of this chapter.

Strategies for Developing Constructs

Strategies to teach constructs are intrinsically more difficult than those for concepts and generalizations. Because the construct is inherently greater and more complex, it is problem enough identifying its cognitive elements let alone manipulating them in a pattern of instruction. Since the construct is a larger and more abstract piece of knowledge, strategies to build it must command more time, material, and energy. Because far less research, literature, and experience is available on teaching constructs, discussion of related strategies may rely on speculation more than practice. Yet a commitment to teach a structure of knowledge in which constructs are an integrating element demands that such strategies be considered.

The general strategy for teaching constructs is composition. It requires that students be led to piece together the multiple relationships of a construct through a relatively long period of time. The following factors are involved in the strategy:

1. Identify the component concepts and generalizations and their relationships in the construct. This may be done in an outline or in a diagram or cognitive map. The map will indicate which components are the vital subsumers and may suggest an order in which components should be taught. A number of organizations of ideas in a construct, like Senesh's well-known chart of ideational relationship in economics[2] and Easton's diagram of a political system,[3] are already prepared and published. Figure 5 shows a chart for the construct of social organization.
2. Develop or obtain a concise communication to represent the construct to the students. It may be a model, diagram, reading, lecture, or the like. It is not usually as abstract or complex as the educator's cognitive map but includes the essential elements in a form students can understand.
3. Locate or develop situations in which students can study the operation of the construct. The situations might be found in printed materials, community resources, films, student reports, or the like.
4. Plan sequences of instructional activities to accomplish two interrelated goals — one being that the parts of the construct be under-

stood and the other that the parts be fused into a whole construct. Some activities may emphasize one or the other of these aspects of instruction but all relate to final composition of the construct. The sequence of activities varies with the specific strategy described below. The entire sequence may well constitute much of a unit or course or even several spaced segments in a K-12 curriculum.

5. Reinforce and further develop the construct by repeated practice with it in new and different situations.
6. Evaluate periodically by measuring overt behaviors described in the above discussion of constructs in the cognitive model.

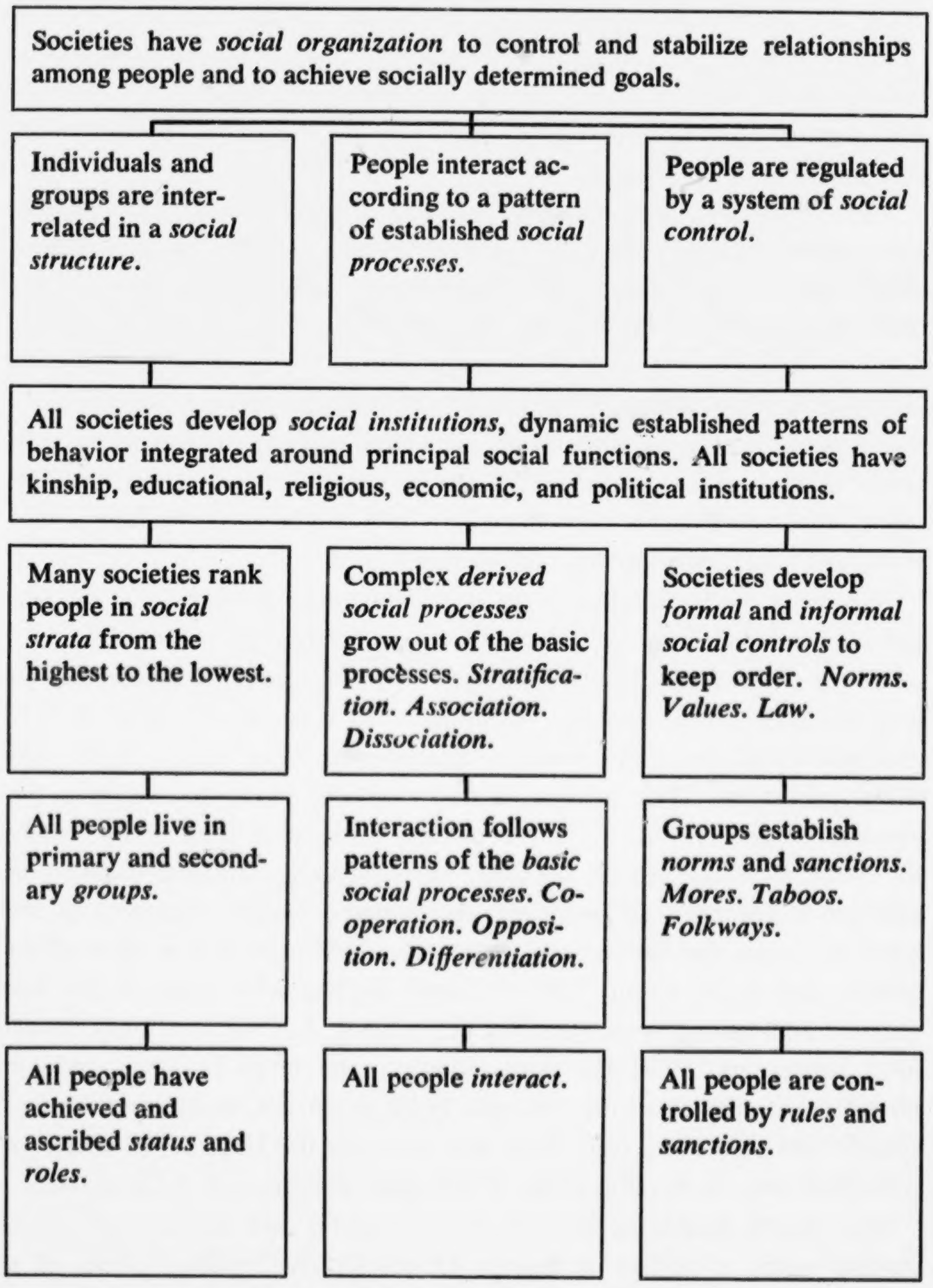
Advance Organizing. This strategy consists of first describing the construct and subsequently developing understanding of the elements and the correlation of elements in the construct by studying them in one or more situations. It is assumed that the students have enough mastery of language and communication skills to derive some understanding of the construct from the initial description but that the significant internalization of the knowledge will result from subsequent analysis of the parts of the construct. The first communication serves as an important advance organizer for the students' cognitive structuring. Using the advance organizer as a focal point for all subsequent learning activities in the sequence should result in better understanding of both the construct and its component concepts and generalizations.

The initial communication does not seek to represent the whole construct but attempts to present clearly and simply the most inclusive and essential ideas — those under which the others are subsumed. These ideas and the system of the construct are described and illustrated in the communication which may be a lecture, discussion, filmstrip, chart, model, or the like.

In the ensuing instruction the components of the construct are developed in relation to the advance organizer and to each other. Instruction progresses from the most abstract and subsuming ideas to the least abstract parts of the construct and from treatment of the construct as a whole to greater discrimination among the components of the construct. This progressive differentiation along with the advance organizer promotes better understanding of the construct and its components.

Study of the construct is done in the context of selected situations which contain examples of the concepts and cases of the generalizations as they interrelate in the construct. The task of instruction is to develop

A Construct of Social Organization



Societies have *social organization* to control and stabilize relationships among people and to achieve socially determined goals.

Individuals and groups are interrelated in a *social structure.*

People interact according to a pattern of established *social processes.*

People are regulated by a system of *social control.*

All societies develop *social institutions,* dynamic established patterns of behavior integrated around principal social functions. All societies have kinship, educational, religious, economic, and political institutions.

Many societies rank people in *social strata* from the highest to the lowest.

Complex *derived social processes* grow out of the basic processes. *Stratification. Association. Dissociation.*

Societies develop *formal* and *informal social controls* to keep order. *Norms. Values. Law.*

All people live in primary and secondary *groups.*

Interaction follows patterns of the *basic social processes. Cooperation. Opposition. Differentiation.*

Groups establish *norms* and *sanctions. Mores. Taboos. Folkways.*

All people have achieved and ascribed *status* and *roles.*

All people *interact.*

All people are controlled by *rules* and *sanctions.*

FIGURE 5: Organization of a Construct

The chart represents an organization or generalizations and concepts in a construct. Key concepts are in italics. The most abstract and subsuming ideas are at the top.

understanding of both the component concepts and generalizations by using the demonstration strategies described above, and of the construct by relating the concepts and generalizations to each other and to their place in the advanced organizer. Learning is enhanced by starting with a more familiar and simple situation and proceeding to more complex and remote situations.

Use of the advance organizing strategy to teach the social organization construct (Figure 5) can be visualized in a hypothetical high school social studies class. The teacher provides the advance organizer in the form of a glossary of basic terms, which serve as prime concept symbols, and a short explanation of social organization, which includes the most inclusive generalizations of the construct. Students become familiar with the communication in discussions in which they are asked to explain terms in their own words and to tell how parts of social organization might affect each other. For example, they might consider how social strata and social control affect each other.

Superficial understanding is developed from the discussion of the initial communication but each student's internalization of the construct and its component results from subsequent work with social organization in four situations. With the first situation, their own school, they identify examples of groups, social strata, formal and informal social control, and social processes. They analyze a major school event to see how the identified elements direct people toward socially defined goals during the event. With the second situation, their own city, students identify, in addition to examples of previously developed concepts, examples of the kinds of norms, the derived social processes, and explain how these affect groups and social strata. They are now dealing with some of the less abstract and more diverse elements but relating them to previously developed subsumers. With the third situation, the Hopi Indians, students identify examples of all the concepts in the construct, including the most specific like status and role. They also compare the Hopi social structure with their own to develop some of the generalizations in the construct.

The fourth situation provides an evaluation and summation. Each student reads a version of George Orwell's "The Pecking Order of a Restaurant," which describes social organization in a Paris hotel.[4] He then does on open-book assignment which requires him to identify examples of the concepts in the reading and to use generalizations from the construct to explain circumstances and events in the reading.

This example of advanced organizing takes place during a number of weeks. It incorporates concept and generalization demonstration strategies. It progresses from the general preview of social organization to development of its most specific parts in relation to the whole construct.

Cumulative Structuring. The cumulative structuring strategy is to build the construct component by component, relating each newly developed part to those previously developed. Instruction proceeds from the least abstract to the most subsuming elements of the construct. With each concept and generalization related in turn to the others, the end result is total assembly of the construct. The culminating effort may be to name the construct and have students develop their own representative communication of it in the form of a verbal explanation, diagram, model, or role-playing. Students might then evaluate their own compositions by comparing them with one provided by the instructor.

The cumulative structuring strategy can be illustrated with a secondary class using three situations to build the social-organization construct. In the first situation, the school, students identify examples and cases of the components in the two lowest levels of the construct represented in Figure 5 and consider how the components interrelate. For example, how the teacher's status and role affect interaction and sanctions is discussed. In the second situation, the city, students identify and interrelate components of the first four levels of the construct. They work with all components of the chart in the third situation, Hopi Indian society. To clarify and complete their construct building, they write a description of what they would expect to find in the social organization of any remote country they might visit. They then, in small groups, compare and criticize the accuracy and completeness of each other's description of social organization.

Cumulative structuring is unlike advance organizing in that it proceeds from the least to the most inclusive knowledge. It is like advance organizing, however, in emphasizing the interrelation of parts in a whole and in the use of situations. Students develop understanding of the construct by studying relations among its parts in situations, proceeding from simple to more complex situations and working with examples and cases in the situation to learn the component concepts and generalizations. The instructor uses concept and generalization teaching strategies as part of the cumulative structuring plan.

Psychologically, cumulative structuring may lend less meaning and retention to lesser concepts and generalizations in the construct than advance organizing. While advance organizing progresses to greater discrimination among components, cumulative structuring may effect dissociation and obliteration of lesser ideas as they are subsumed by more inclusive ideas. Whether one strategy or the other produces better understanding and retention of the construct itself may vary with the construct, the situations, the student's readiness, or the representative communications. Constructs in which major subsumers cannot be understood at all until lesser generalizations and concepts are developed would not be suited, of course, to development by advance organizing.

Practice with the construct is an essential adjunct to either of the above construct teaching strategies. Once the whole construct has been developed, students should work with its parts and functions in a variety of situations. Such "overlearning" in multiple contexts enhances the assimilation, understanding, transfer, and retention of the construct and its components.

Periodic Augmentation of Constructs. Constructs need not and perhaps sometimes cannot be taught in their entirety in one sequence of learning activities. It may be both necessary and desirable to repeat instruction of a construct periodically through a K-12 social studies curriculum, adding components and meaning each time. Each cycle of instruction could vary with student maturity, use more complex situations, and develop more components and meaning in the construct.

The political system construct, for example, might be developed at the primary level by cumulative structuring of the concepts of authorities, members, rules, inputs and outputs in family and community situations. At the intermediate level, the construct could be reviewed as an advance organizer and the concepts of interaction, norms, political institutions, law, and the state added in community, municipal, and national institutions. In the secondary school, the system could be reviewed and differentiation among the kinds of inputs and outputs and the concepts of stability and change of the system added in national situations.

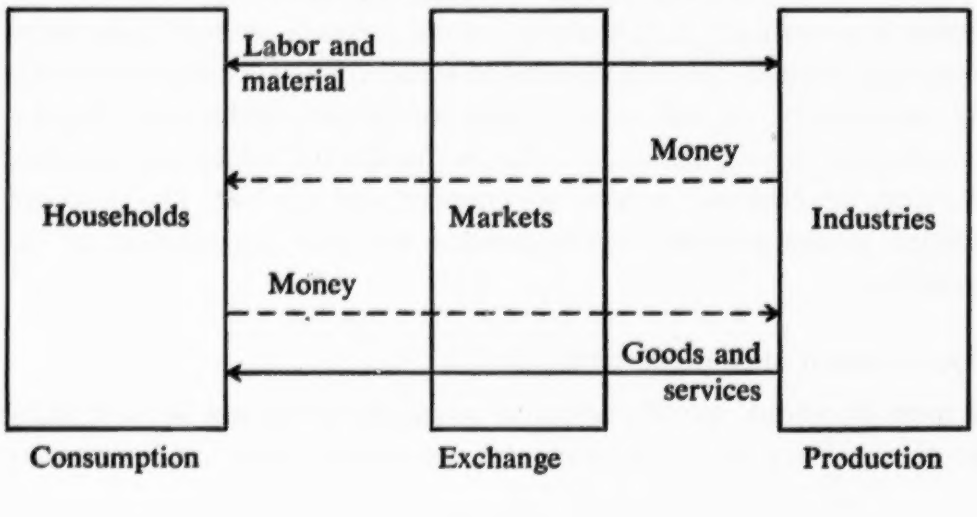
Variations in Strategies for Teaching Constructs. The construct teaching strategies discussed above are highly flexible. Great variations are possible within the general patterns of cumulative structuring and advance organizing. Some of the variations may involve approaches such as model-building, ego-centered association, simulation, or problem solving.

Model-building is teaching a construct by involving students in the making of a model representative of the construct. They might work with a diagram, physical mock-up, or verbal model. They might build the model quite independently or with carefully structured teacher supervision depending on the construct, the students, and the time available. The model might be used as an advanced organizer or be developed by students through cumulative structuring.

A model of an economic system, for example, can be built through a course by starting with a rudimentary diagram to which students add concepts and relationships.[5] The model is first presented with three agents (households, industries, and markets) and with two relationships (exchange of money and exchange of goods and services). The concepts of scarcity, consumption, production, exchange, and interdependence are carefully developed with students relating familiar examples of family economic functions to the model. As the course progresses students add new agents, concepts, and relationships to the model. They draw their own versions of models to include new elements like primary, secondary, and tertiary industries or to represent new situations like regional specialization. The important thing is to use the diagrams as a way the students can on their own come to "see" or understand the multiple relationships among concepts in an economic system.

Ego-centered association is useful because students' daily behaviors are parts of complex systems of which they have functional knowledge but of which they may not have developed conscious awareness. The five-year old, for example, has operational knowledge of the structure of

FIGURE 6. Simplified Economic Model



language but can't explain why he organizes sentences and conversations as he does. The high school student performs daily as part of a social organization but may not be able to describe the structure of it. Leading students to see how their behaviors are parts of such systems may be a way to help them build a construct.

Social organization, for example, might be taught by having students associate parts of their own behavior with elements in the knowledge construct. The strategy might begin by leading students to identify their roles and statuses and proceed to spell out norms and patterns of interaction. Leading them to clarify their parts and places in institutions, social strata, and social processes would add important concepts and generalizations to the construct. The advantages of such ego-centered association lie in providing abundant familiar examples of concepts and cases of generalizations as well as allowing students to see how these components relate in a construct from their own experiences and points of reference. The approach of ego-centered association uses the students' own experiences for situations and provides an organizing frame of reference for the cumulative structuring strategy.

Simulation games provide another useful approach to construct teaching strategies. Games like "Game of Revolution"[6] or "Economic System"[7] could serve as advance organizers. Games like "Game of Farming"[8] and "International Trade"[9] might be used as situations in which the economic system is studied. Student-planned simulations could serve as a culmination for cumulative structuring.

Problem-solving may provide an approach to construct teaching when the possible solutions to a problem involve a number of factors interrelated in a construct. If, for example, the under-development syndrome is a construct, consideration of the problem of developing areas could lead students through cumulative structuring of a construct involving productivity, capital accumulation, investment, technology, population density, money, inflation, deflation, leadership, education, standard of living, the economic role of government, and the like. The proposed solution to the problem would provide the final organization of the construct.

Coordination of Specific Strategies

In most situations, specific cognitive strategies would not be used independently. They would typically be coordinated with complementary strategies. Likewise elements of knowledge would typically be taught in groups rather than independently.

A cluster of interrelated concepts can often be developed from the same group of examples and nonexamples. The historical concepts of change, chronology, continuity, and progress, for example, could be taught from the same set of examples. Examples of one concept sometimes can serve as nonexamples of others. Examples of land, for example, can serve as nonexamples of capital.

Strategies may sometimes be used successively. Concept attainment may be followed by concept augmentation which may be followed by one or more of the strategies for generalizations. Periodic evaluation of overt behaviors would be included in the sequence.

Strategies may also overlap. The same examples for concept attainment may be involved in cases of a generalization. Thus concept attainment and induction of a generalization may grow out of the same content.

The construct teaching strategies, of course, serve as organizers for generalization and concept teaching strategies. In the situations with which students work in learning a construct there are cases of generalizations and examples of concepts. Thus the generalization and concept strategies can be used to develop understanding of the components of the construct.

A pattern for the coordination of strategies may be suggested by one of several factors. The subject matter may sometimes suggest a sequence. In an American history course, for example, the abundance of examples and cases concerning monetary policies in the late 1800's may suggest cumulative structuring of a construct of a monetary system. The abstract knowledge selected for instruction may other times suggest the pattern of strategies. If 12 major concepts are to be taught in a course, for example, those that can be taught from the same set of examples and nonexamples can be introduced in the same unit. If two of the concepts are culture and cultural change, it would make sense, of course, to teach culture first. Other educational objectives may also influence the selection of strategies. If educators want to stress inquiry skills and attitudes, for example, the attainment strategies may be more useful. Student maturity, instructional materials, or the need for variety in the classroom are other factors that may suggest a sequence of strategies.

THE TEST OF THE MODEL AND STRATEGIES

The test of this cognitive model and of the related instructional strategies is quite simply whether they work. If teachers, given time and preparation, can use them in planning and conducting instruction and if students can, as a result, learn the cognitive products, the model has merit.

The following are some criteria to be used to test the model. If it is useful, these things can be done:

1. Educators can identify elements of the model in the knowledge they want to teach. (If, for example, a teacher wants to teach a specified generalization, he can identify related cases, concepts, examples, and attributes suited to his course and students.)
2. Teachers can define specific objectives in terms of the model. (For example, teachers may want to add specific attributes to knowledge of a concept or want to teach a designated generalization.)
3. Teachers can use specific strategies to plan instruction of specified cognitive objectives or goals. (For example, if the objective is to augment a concept, the teacher can identify appropriate elements, plan what to do with them, and plan evaluation.)
4. Teachers can coordinate specific strategies in unit and course strategies.
5. Teachers can analyze other cognitive plans and curricular materials by using the model to identify cognitive elements and to compare cognitive strategies involved.
6. Teachers can implement strategies designed by use of the model in their actual instruction.
7. Teachers will evaluate student's abstract knowledge in terms of overt behaviors described in the model.
8. Students can learn the types of knowledge defined in the model as a result of instruction employing the cognitive strategies.

FOOTNOTES

[1] Melton, Arthur W. "The Taxonomy of Human Learning: Overview." *Categories of Human Learning*. New York: Academic Press, 1944. pp. 325-339.

[2] Senesh, Lawrence. *Economics*. Boulder, Colo.: Social Science Education Consortium, 1966. 16 pp.

[3] Easton, David. *A Systems Approach to Political Life*. Boulder, Colo.: Social Science Education Consortium, 1966. 22 pp.

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CHAPTER FIVE

Norris Sanders

Changing Strategies of Instruction: Three Case Examples

Despite a continuous barrage of recommended innovations, the basic instructional strategies of teachers seem to remain in the same stable pattern.[1] Expository textbooks continue to be the overwhelming choice of teachers as the most used instructional aid. Homework calls for studying a text; in the classroom recitation which follows the students are asked to remember what they have read. Finally, a test calls for recall of the knowledge that was read and recited.

This chapter discusses three currently recommended instructional strategies: one is the *discovery* or *inquiry* approach. The second is a plan for systematically leading students to a variety of kinds of thinking in the practice and evaluation stages of instruction. The use of simulation games is the final strategy examined. There are many other recommended strategies not described here that are equally worthy of consideration. However, the purpose of the chapter is not to survey all currently popular strategies but to describe three case examples as a basis for considering the problem of why so many widely endorsed teaching strategies do not come into common practice in classrooms. The final section of the chapter is devoted to this problem.

EXPOSITION, DIRECTED DISCOVERY, AND PURE DISCOVERY

The term, "discovery," is used in a variety of meanings in current discussions of teaching strategies. A brief examination of the different degrees and forms of discovery that may be employed in the social studies classroom is therefore in order.

Definitions

Exposition is by far the most commonly used strategy for introducing new subject matter to students. The teacher presents the students with an attractive and understandable package of ideas; the student is expected to "assimilate" the information and explanation presented by the teacher.

The strategy called *discovery* or *inquiry* differs from exposition in that students are not presented with an explanation of the knowledge to be learned; instead, they are led by the teacher to collect pertinent information and reason out some or all of the knowledge. In pure discovery the teacher does little more than pose a problem in such a manner that students must find appropriate raw data and reason out a conclusion. Directed discovery is a name sometimes given to a strategy in which elements of exposition and discovery are combined. That is, the teacher presents some information or takes some responsibility for finding appropriate raw data, but deliberately avoids a complete explanation in order to give students intellectual responsibility. The proportions of student responsibility and teacher responsibility can be varied in any degree that the teacher feels appropriate for the class.

One common misconception about discovery or inquiry is that it is a kind of thinking in the same sense as deduction or reasoning by analogy. Some educators have used the phrase "inductive thinking" to be equivalent with discovery. A more accurate and useful conception of discovery encompasses a wide range of thinking practices. If discovery is defined simply as the process whereby students reason out important ideas for themselves, then it can be seen to include many thinking processes, such as locating information, evaluating the reliability of sources, classifying and organizing data, making comparisons, drawing inferences, drawing inductive conclusions, and making value judgments. This list is far from exhaustive, but it does indicate the broad range of thinking that is possible under the heading of discovery.

Examples of Exposition and Discovery Strategies

The nature of the exposition, directed discovery, pure discovery spectrum can be illustrated by a few examples. The first example of exposition strategy is designed for primary grades. Many of the new economics programs make a point of having students distinguish between economic needs and wants. In this case, the teacher explains the ideas to the students with the use of a flannelboard. She has title cards which read NEEDS and WANTS. In addition, the teacher has available for display pictures of the needs and wants which she will mention in her explanation. The presentation could go something like this:

Today we are going to learn the meaning of two important words — needs *and* wants. *(Place name cards on flannelboard.) Needs are things which we must have to keep on living. We need food to eat or we couldn't live. (Put up picture of food under card entitled* need.*) We need clothing to keep us warm. (Put up clothing picture.)*

After the teacher has given enough examples so she feels that the point is made, she proceeds to define *wants.*

Our wants are things we would like to have but could get along without. Toys are examples of wants. (Pictures of toys displayed.) We all like toys but we could get along without them. If we didn't have food for a long time, we would die, but if we didn't have a bicycle for a long time we would not die.

The procedure continues along the same line using many examples of wants. In practice the teacher would probably ask some questions along the way to see if the students were following.

The same concepts can be introduced by the strategy of directed discovery. The flannelboard is used again in this example. The teacher does not explain the economic ideas but rather leads the students to reason them out.

(A picture of a bicycle and some food is displayed on the flannelboard.) Which would you choose to have — a bicycle and no food to eat — or food to eat but no bicycle? (The teacher must make clear that the food would not be available over a long period of time.)

The guided discovery may be continued by posing such questions as these for the children to discuss:

Which does a family need most:

1. Food or a vacuum cleaner?

2. *A new rattle for the baby because his old one broke* or *a new bottle for the baby because his old one broke?*
3. *A new pair of shoes for brother because he has a hole in his old ones* or *a new tree for the front lawn?*
4. *Help from a doctor when the daughter became ill* or *help from a bicycle fixer when the son broke his bicycle?*
5. *Gas for the car so father can drive to work* or *gas for the car so the family can take a vacation?*
6. *A new toothbrush for mother because hers is worn out* or *ice cream cones for the children?*

The economic ideas are more accurate in this example than in the previous one because the relative nature of needs and wants is revealed instead of making them appear as though black and white. This would be a difficult distinction to make in an explanation to young students. An example of how these concepts could be introduced by pure discovery is not offered here because the ideas of needs and wants don't seem amenable to the strategy when applied to young children.

The next series of examples presents three ways of developing a study designed for secondary students in citizenship or political science classes. The students have completed a study of liberalism and conservatism in political affairs. Now the teacher wants to extend the understanding of ideas to a consideration of voting behavior of legislators.

With exposition strategy, the teacher starts with an explanation that could go something like this:

It is difficult to be fair in summarizing the political philosophy of a legislator because so many factors must be considered — many of which are difficult to measure. On the other hand, citizens should have a general idea of how their congressman will react to specific proposals. This is vital in voting. It is also important for citizens who wish to promote certain legislative programs to be able to predict where they might receive help in Congress, who might be won over, and who can be counted upon to lead the opposition.

Our Congressman Mr. John Byrnes seems to be a moderate conservative. He is likely to look with disfavor on bills that increase the power of the federal government. As evidence in 1963-1964, in a group of 18 selected bills which increased federal power, Mr. Byrnes voted against 12. On specific issues he has been a supporter of civil rights legislation, control of internal communist subversion, and the limitations *on labor unions such as found in the Taft-Hartley Law. On the other hand, he has quite consistently opposed federal welfare legislation. On public works, education, and agriculture support bills, Mr. John Byrnes' votes have been mixed.*

Mr. Byrnes usually votes with the majority of the Republicans in Congress. In 1965 and 1966 he voted with the majority of his party members 79 per cent of the time while voting in opposition to it at a rate of 12 per cent. One good indication of Mr. Byrnes' political posture is the rating he receives by various organizations. In 1965 and 1966 the liberal Americans for Democratic Action rated our congressman as voting correctly only 6 per cent of the time on a series of bills selected by the organization. The labor-oriented COPE found Mr. Byrnes to vote in accordance with this organization's view zero per cent. However, the National Association of Businessmen scored Mr. Byrnes 100 per cent correct on selected bills, and the very conservative Americans for Constitutional Action scored him as 88 per cent correct. All these figures were taken from the Congressional Quarterly Weekly Report.

Again, I warn you that great care must be taken in pinning a label on any congressman. Most congressmen are liberal on some things and conservative on others. Conditions change and congressmen have every right to change their minds. Just because we cannot make this kind of analysis with complete confidence is not a convincing argument for not doing it at all. Congressmen do follow fairly consistent voting patterns and good citizenship demands knowing these patterns.

From here the teacher goes to step two in instruction and asks students to recall the ideas on John Byrnes and apply them to new situations. *"From what you know of John Byrnes' philosophy, what would you predict his attitude to be toward federal legislation requiring gun registration?*

Directed discovery ranges somewhere between exposition and pure discovery. In the example that follows, the teacher directs the thinking by a brief expository introduction (which is not included here), and also by supplying students with all pertinent data needed for answering questions. The questions themselves are directive in that they lead students through the data. Even with all this guidance by the teacher, the lesson offers significant areas for student discovery, as is evident by comparing it with the previous example of the expository strategy with the same lesson. The lesson is first presented to students in mimeographed form as an assignment. Following this, the class goes through the questions in oral recitation. (All data are quoted from the *Congressional Quarterly Weekly Report.*)

In 1963 and 1964 a number of bills were before Congress which increased federal power. In the figures below, the votes by Wisconsin congressmen on 18 *of these bills are presented. The first column of numbers shows how many of the 18 bills were* supported *by the lawmaker, and the second shows how many were* opposed. *Congressmen whose votes are missing were just elected when these data were assembled, and, therefore, had not voted on the bills.*

Wisconsin Congressmen	Supported	Opposed
Kastenmeier	*16*	*2*
Race	. .	. .
Reuss	*18*	*0*
Stalbaum	. .	. .
Zablocki	*17*	*1*
Byrnes	*6*	*12*
Laird	*5*	*13*
O'Konski	*13*	*5*
Thomson	6	*12*
Davis	. .	. .

QUESTIONS:

1. *In general, does Mr. Byrnes support more power for the federal government? Yes_____ No_____*
2. *Does Mr. Byrnes come closer to being a liberal or conservative on this point? Liberal_____ Conservative_____*
3. *Name a Wisconsin congressman who would seem from the figures most likely to be a Democrat. ____________________*
4. *Which one of the following is most accurate?*
   - _____*Mr. Byrnes can be counted on never to support bills increasing the power of the federal government.*
   - _____*Mr. Byrnes is likely to be against a bill that increase the power of the federal government.*
   - _____*Mr. Byrnes is likely to be against bills that increase the power of* state *government.*

President Johnson asked for congressional support of many bills in 1965 and 1966. The following data show the per cent *of support and* *opposition that Wisconsin congressmen gave to 215 bills favored by the President. The figures for a congressman are reduced if he didn't vote on some bills.*

Wisconsin Congressmen	Per cent support of Johnson	Per cent opposition to Johnson
Kastenmeier	*80*	*9*
Race	*76*	*14*
Reuss	*89*	*5*
Stalbaum	*79*	*13*
Zablocki	*77*	*7*
Byrnes	*41*	*51*
Laird	*33*	*50*
O'Konski	*41*	*34*
Thomson	*34*	*56*
Davis	*34*	*58*

QUESTIONS:

1. *Does Mr. Byrnes more often support the President's position or oppose it? Support_____ Oppose_____*
2. *In the November 1966 election, Race and Stalbaum were defeated. Would this please or displease President Johnson? Please_____ Displease_____*
3. *What other two congressmen from Wisconsin are most similar to Byrnes in their support and opposition to President Johnson?*

   ____________________ ____________________
4. *A. Is it* possible *from this data that Byrnes supported Johnson's foreign policy but not domestic? Yes_____ No_____*

   B. Is it possible *from this data that Byrnes supported Johnson's domestic policy but not foreign? Yes_____ No_____*

A number of organizations in the United States rate the voting record of congressmen. These are special interest organizations made up of members who have strong opinions on how our government should be run. Each group chooses a series of important bills and records how often congressmen voted in the way that the organization judges to be "right."

The data below are for these four groups:

Americans for Democratic Action ....Very Liberal

Committee on Political Education ....Liberal
National Association of Businessmen ....Conservative
Americans for Constitutional Action ....Very Conservative

Wisconsin Congressmen	% Right ADA	% Right COPE	% Right NAB	% Right ACA
Kastenmeier	*94*	*100*	*20*	*20*
Race	*41*	*92*	*20*	*40*
Reuss	*100*	*100*	*0*	*4*
Stalbaum	*71*	*85*	*10*	*8*
Zablocki	*71*	*100*	*0*	*8*
Byrnes	*6*	*0*	*100*	*88*
Laird	*0*	*0*	*100*	*83*
O'Konski	*12*	*69*	*78*	*67*
Thomson	*0*	*0*	*100*	*88*
Davis	*6*	*0*	*100*	*85*

QUESTIONS:

1. *Which organization gave Mr. Byrnes the best rating on his voting?*
2. *From these data, where would you consider that Mr. Byrnes should be placed on a liberal-conservative scale?*

Very	*Moderately*	*Middle of*	*Moderately*	*Very*
liberal	*liberal*	*the road*	*conservative*	*conservative*

3. *Conservative Wisconsin congressmen are likely to be Republicans. Name three Wisconsin congressmen who are probably Republicans.*
   (1)__________ (2)__________ (3)__________
4. *Name three Wisconsin congressmen who are likely to be Democrats.*
   (1)__________ (2)__________ (3)__________
5. *From these data, would the defeat of Congressmen Race and Stalbaum in the recent election probably please or displease Mr. Byrnes?*
   Please____ Displease____

Mr. John Byrnes has voted on thousands of bills during more than 20 years in the U. S. Congress. It would be easy to choose for study a few votes from his record that would make his appear to be very liberal or very conservative. Hopefully, the following positions taken by Mr. Byrnes are representative of the way he has often voted on labor, public works, education, welfare, international affairs, agriculture, communism, and civil rights.

(NOTE: The data on public works, welfare, international affairs, agriculture, and communism that appear in the student version are omitted here for the sake of brevity.)

Labor

(1947) Taft-Hartley Act. A bill to place restrictions on labor unions. Mr. Byrnes voted YES. H. R. 3020

(1965) A bill to repeal Section 14b of the Taft-Hartley Act. This would strengthen labor unions by preventing states from outlawing the union shop. Mr. Byrnes voted NO. H. R. 77

Education

(1956) A bill wherein the federal government would appropriate $1.6 billion for local school construction over four years' time. Mr. Byrnes voted NO. H. R. 7535

(1960) A bill authorizing $325 million a year for four years for school construction. Mr. Byrnes voted NO. H. R. 10128

(1963) A bill to provide a five-year program of federal grants and loans for construction and improvement of higher education facilities and to authorize $1,195,000,000 for three years. Mr. Byrnes voted YES. H. R. 6143

Civil Rights

(1957) A bill to empower the U. S. Attorney General to ask for court injunction to eliminate obstacles to voting set up by states. Mr. Byrnes voted YES. H. R. 6127

(1960) A bill to make obstructions of court orders for school desegregation a crime, to require the preservation of voting records, and to provide for court referees and other matters. Mr. Byrnes voted YES. H. R. 8601

(1964) A bill to enforce various rights including protection of voting rights, outlawing racial or religious discrimination in public restaurants, hotels, and other public accommodations. This bill also forbids discrimination in employment or labor union membership. Mr. Byrnes voted YES. H. R. 7152

QUESTIONS:

1. *If you wished to give evidence that Mr. Byrnes tended to be conservative, would you point to his selected votes on welfare or on public works?* ______________

2. *Did the two selected labor votes present evidence of Mr. Byrnes' liberalism or his conservatism?* ______________
3. *In the 1950's, did Mr. Byrnes seem concerned with the menace of communism within the United States? Yes*_____ *No*_____
4. *Coming from a dairy state, can Mr. Byrnes automatically be counted on to vote in favor of agricultural price supports?*
*Yes*_____ *No*_____
5. *Does the evidence presented indicate that Mr. Byrnes is concerned with increasing the rights of Negroes? Yes*_____ *No*_____
6. *In what ways might the evidence presented here be unfair to Mr. Byrnes?*

Finally, at the opposite end of the spectrum from exposition, the teacher gives a minimum of assistance in a study involving pure discovery. This example happens to take the form of a project assignment.

We have been studying political and economic liberalism and conservatism in the United States. We have seen how these ideas can be useful in getting perspective in analyzing the ongoing politics. You were able to study editorials in newspapers over a period of time and detect the political complexion of the papers and specific columnists. Some were liberal, some conservative, some middle-of-the-road, and some erratic.

You have demonstrated your ability to study a political issue and build both a liberal case and a conservative case for it or against it.

In our next project, you will apply the ideas of liberalism and conservatism to the voting habits of our U. S. Congressman, Mr. John Byrnes. Every citizen in our district should have some clear ideas about Mr. Byrnes' philosophy in order to determine whether or not to support him.

To start our thinking, I would like to have you consider this question: How can we as a class learn Mr. Byrnes' thinking on political liberalism and conservatism?

In its purest form, discovery requires that the teacher do little more than direct attention to a problem. The students must figure out the procedures for attacking the problem as well as the answers. In the interest of learning efficiency, the teacher may depart somewhat from the pure discovery strategy by pointing out weaknesses in the students' planning, by calling attention to unanswered questions, by suggesting possible sources of information, and by setting some time limitations.

Advantages and Disadvantages of Discovery Strategies

The classroom teacher who tries a discovery strategy finds both advantages and disadvantages. One common observation is that discovery takes more time and that the purer the discovery, the more time-consuming it is. This is evident in the John Byrnes exercise. The directed discovery approach takes a little more time than exposition. However, if pure discovery were employed, the students might need a couple of weeks to complete the exercise, unless the teacher was very generous with hints. Many social studies teachers feel that they already have a problem of too much important subject matter that should be treated in their courses. Proponents of discovery argue that "covering the ground" is not as important as giving students meaningful experiences which are more likely to influence behavior by providing opportunities to practice inquiry skills and processes.

Another reaction of teachers is that most learning materials now available, including textbooks, do not lend themselves to discovery because they are written for exposition. Discovery always is based on raw data of some kind. The raw data in the "needs and wants" lesson were easy to provide because they were within the experience of all children; they knew about the food, clothing, toy trucks, toothbrush, vacuum cleaner, etc. However, the "voting lesson" illustrates the kind of data that it is often necessary to have available; such data are seldom found in conventional learning materials in sufficient quantity to use the discovery strategy.

A number of publishers are putting out books of readings in social studies which are meant to serve the function of raw data. These are a step in the right direction but frequently they suffer from serious limitations. Many of these readings are from history and this field is probably the least amenable of all the social studies subjects in providing *usable* raw data. Historical documents are seldom very interesting or comprehensible to high school students because they are written in vocabulary which is both difficult and archaic. Geography, economics, and sociology tend to offer better opportunities for raw data appropriate to the needs of elementary and junior and senior high school students, but little is available in suitable form for use in instruction.

Time and again educators make the mistake of carrying a good idea too far. It is the view of this author that the switch away from total emphasis on an expository textbook is a desirable trend, but that to attempt to develop a course based entirely on raw data readings would be a mistake. It is a stimulating change for students to get away from exposition some of the time, but daily interpretation of readings can get to be as big a drag as daily recitation of an author's explanation. The strategy of exposition, with careful planning by the teacher, does have the advantage of giving to a course an organization and direction which can be perceived by students. Too often the students lose the feeling of where they have been and where they are going in a course which offers them only the opportunity to interpret raw data. Teachers can easily take a middle road in selecting strategies by using expository materials much of the time, but setting them aside periodically to handle part or the whole of a unit through other kinds of information and approaches.

The educational research on exposition and discovery is voluminous but as yet inconclusive. An excellent survey and analysis of this research is found in chapters by Wittrock and Cronbach in *Learning by Discovery: A Critical Appraisal.*[2] Both authors criticize much of the research concerning the discovery approach that has been reported as being oversimplified and involving questionable experimental procedures. Wittrock concludes: *Many claims for learning by discovery are made in educational psychology. But almost none of these claims have been empirically substantiated or even clearly tested in an experiment.*[3] Cronbach arrives at a similar position: *I have indicated a number of reasons why the existing research on inductive reasoning has not begun to give the answers needed for firm recommendations to the schools.* Cronbach observes that the rush of teachers to use discovery as the latest trend leaves the researcher . . . *standing on his tiny, laboriously tamped patch of solid ground, crying in a pathetic voice, "Wait for me! Wait for me!"*[4] In response to Cronbach, the teachers explain: *We can't wait because we have lessons to plan today. However, we can refrain from assuming that discovery is a proven panacea.*

Even without the testimony of research, many teachers using discovery have learned the following in their own classrooms:

1. Students can learn by discovery. They can also learn by exposition.
2. Some ideas to be taught lend themselves better to learning by discovery than other ideas. (A hypothesis of this author is that ideas that have many exceptions and shades of meaning are the best to

develop by discovery, because the subtle differences can be demonstrated better by examples than by explanation.)

3. Some students thrive on a considerable amount of discovery and others wilt under the responsibility.
4. Students vary in the kind of discovery strategy which they perform successfully.
5. Some teachers enjoy a style of instruction featuring more discovery and usually do it well while others neither enjoy it nor consistently succeed in it.
6. There is an interaction between affective climate within a class and the success of various discovery strategies.

The way researchers can help teachers to employ discovery strategies more effectively is to take some of the trial-and-error out of the decisions that are involved. How can we learn to predict more accurately which teachers, with which ideas to be taught, with which students, with which kind of discovery or exposition, in what kind of affective classroom climate will help students learn more efficiently?

SYSTEMATIC PLANNING FOR SEVEN KINDS OF THINKING

Critical thinking has long been endorsed in educational objectives but frequently neglected in practice. The extent of neglect is shown in evidence gathered by Lawrence.[5] He studied 4,562 test items on 74 tests selected at random from those submitted by 63 high schools in Southern California. The subject areas were geography, American history, world history, and U. S. government. The disturbing results were that about 98 per cent of the items required the students only to remember, and 75 per cent called for the memory of specific facts. Pfeifer and Davis obtained similar evidence in a study of junior high semester examinations.[6] Floyd studied classroom questions of 40 elementary teachers identified by principals as being among the "best."[7] He found that in practice, memorization seemed the main goal of their instruction and that only six per cent of the questions asked were of the type that stimulated reflection by students.

An excellent way to attack this problem of over emphasis on memory is for teachers to use one of the taxonomies of questions which have been developed in the last few years. Bloom and his associates devised a classification system that defines seven kinds of thinking.[8] A teacher can lead students to practice each of these forms of thought by asking specified kinds of questions in recitation, projects, homework, and examinations. The "taxonomy of questions" described in this section refers to the seven kinds of classroom questions which lead to Bloom's seven forms of thinking:[9]

1. Memory
2. Translation
3. Interpretation
4. Application
5. Analysis
6. Synthesis
7. Evaluation

Each kind of question can be adapted to any subject area and grade level. Within each category there are possible questions for the brightest students and other questions appropriate for slow learners. By applying the suggestions which follow, teachers can be certain that students are given opportunity to practice each of the identified forms of thinking.

Memory Questions

A memory question asks students to recall or recognize ideas presented to them previously in reading or listening. Memory questions can require the student to recall a single fact or a much more involved idea.

Examples of Memory Questions

1. Conditions for this question: The students have read that Washington, D.C., is the capital of the United States.
   QUESTION: What is the name of the capital of the United States?
2. Conditions for this question: The students have learned the products manufactured in their community.
   QUESTION: Check each of the following that are manufactured in our community: ____cement ____aluminum ____automobiles.
3. Conditions for this question: The students have read a current events newspaper on present-day conditions in India.
   QUESTION: What are the main problems facing India today?
4. Conditions for this question: The teacher gave a lecture on Karl Marx's life and made the point that he did not originate from the working classes.
   QUESTION: True or False: Karl Marx learned the working man's view of life during his early life as a factory laborer.

5. Conditions for this question: The students have studied U.S. history through Jackson's administration. In classroom discussion the teacher led the students to compare Jeffersonian democracy with Jacksonian democracy. Following the discussion this question is asked on a test.

   QUESTION: Compare and contrast Jeffersonian democracy with Jacksonian democracy.

(NOTE: When the question was first discussed in class, the students engaged in interpretation thinking. However, when the same question was repeated on the test, it required only memory.)

Translation Questions

In translation the student is presented an idea and then is asked the same idea in a different form which the teacher designates in the question. The student does not have to reason with the idea but simply restate it in a literal way.

Examples of Translation Questions

1. Conditions for this question: The teacher has explained how a store owner buys food from farmers and sells it to families in the neighborhood.

   QUESTION: The teacher assigns students to play roles of storekeeper, farmers, and family members. In a sociodrama the students are to act out the roles that the teacher explained to them.

(NOTE: The teacher presents the economic idea of buying and selling by farmers in the form of an explanation. The students are asked literally to restate the same idea in the form of a sociodrama.)

2. Conditions for this question: The student has read a paragraph in the textbook.

   QUESTION: Now tell me *in your own words* what you read.

3. Conditions for this question: The student has read the book *The Jungle*. This question asks only for the sequence of the story — not an interpretation or evaluation.

   QUESTION: Write a summary of the story in *The Jungle*.

4. Conditions for this question: The world history students are shown a picture of Delacroix's "Liberty Leading the People." By this translation question, the teacher makes sure that students perceive the literal message of the painting as preparation for the next step beyond

translation in which the students will be asked to interpret the symbolism.

QUESTION: Describe what you see in this picture in sufficient detail so that it could be envisioned by someone who has not seen it.

Interpretation Questions

The interpretation question asks the student to *compare* certain ideas or to *use* a functional idea that he studied previously to solve a problem new to him. The idea may be in the form of a skill, definition, theory, class, principle, axiom, law, rule, or generalization. The student doesn't have to determine which idea is to be used in interpretation because the question or the classroom context tells this. The question can be in short-answer or discussion form. Usually the answer is quite objective. In other words, there is usually a right answer which the teacher expects students to reason out.

1. Conditions for this question: After seeing a film on customs of marriage and bringing up a family in an African society, the students are asked:

   QUESTION: In what ways are the marriage and family customs in the movie similar to those in our society and in what ways different?

(NOTE: This is the comparison type of interpretation. An infinite number of questions of this kind are possible in social studies. The teacher must be sure that the comparisons are worth drawing.)

2. Conditions for this question: The primary school class has been introduced to the ideas of producers of goods and producers of services. The teacher now asks them to apply their knowledge to new occupations which haven't been considered before.

   QUESTION: (The students are given a paper with pictures of a fireman fighting a fire, a carpenter building a house, a physician, and a farmer.) Draw circles around the people who are producing services.

(NOTE: The functional ideas are producers of goods and services. The new situations are presented in the pictures. Some pictures could be used for practice and others used on a test.)

3. Conditions for this question: In a sixth-grade class the ideas of cultural transmission, cultural evolution, and cultural lag have been studied. In each subsequent unit, the students apply these ideas to new situations, such as the following:

QUESTION: Learning hieroglyphics by copying them as Ani did in the story of ancient Thebes is an example of (a) cultural transmission; (b) cultural evolution; (c) cultural lag.

4. Conditions for this question: The students have studied the following rights of citizens under U.S. capitalism. (A) Private ownership of capital and consumer goods; (B) Right to initiate a business or choose an occupation; (C) Right to profit in a competitive economy; (D) Collective bargaining between management and labor; (E) Protection against destitution. The class learned that none of these rights of citizens were absolute.

   QUESTION: Bring in news clippings showing the operation of the characteristics of U.S. capitalism. Label which right is involved and indicate whether it has been observed or violated in the particular situation in the clipping.

5. Conditions for this question: The students have learned to use the *Readers' Guide to Periodic Literature.*

   QUESTION: Choose a topic of current interest and use the *Readers' Guide* to find five good sources of information.

(NOTE: A common interpretation question requires students to demonstrate that they can use a social studies skill.)

Application Questions

Application questions are similar to interpretation questions in that students are to *use* functional ideas learned previously. However, application goes one step further. In an interpretation question, the student must show that he can use an idea in a new situation when he is told specifically to do so. In an application question the student must show that he can use an idea in a new situation when he is not told to do so but when the problem calls for it. In other words, application requires the transfer of training.

Examples of Application Questions

1. Conditions for this question: In a primary school language arts class the teacher has taught students how to use an index and table of contents. Later in a social studies class the teacher asks this question: QUESTION: Find the page in our social studies book that tells about Booker T. Washington.

(NOTE: The question would have been interpretation if asked this way: Use the index to find the page in your social studies text which tells about Booker T. Washington.)

2. Conditions for this question: The students have studied the ideas of "specialization" and "division of labor" in their fifth-grade social studies class. The class is going to make ten identical Thanksgiving window decorations. Each involves about six steps of cutting, folding, and pasting.

   QUESTION: How might we organize ourselves to make these decorations most easily?

(NOTE: The question would be interpretation if asked this way: How can we use division of labor and specialization to make these decorations?)

3. Conditions for this question: A class has studied the main regions of the United States. This included consideration of maps of climate, topography, crops, population, vegetation, manufacturing, and agriculture. At the end of the year, the teacher displays a half-dozen big landscape pictures.

   QUESTION: Study each picture carefully and then name a state in which you think the picture might have been taken. Give as many reasons as you can why you think your location might be in the state you name. Use whatever sources of information that you feel necessary.

4. Conditions for this question: The students have had instruction in language arts and social studies in defining a problem, locating data, taking research notes, organizing ideas, expressing ideas clearly, writing footnotes, and bibliography.

   QUESTION: Choose one of the most pressing social problems facing our nation today. Write a term paper on the problem.

(NOTE: To the extent the students use the research techniques properly, they are thinking on the application level.)

Analysis Questions

Analysis questions are always preceded by instruction in one or more of the following often neglected logical processes: classification, induction, deduction, cause and effect, informal fallacies, logical necessity, semantic principles, and psychological obstacles to thinking. An analysis question asks the student to solve a problem with a conscious observance of the rules for good thinking of the type called for by the problem.

Examples of Analysis Questions

1. Conditions for this question: A primary teacher explained to her class that some ideas don't go together (contradiction). For example, it is silly to believe a man is both tall and short.
   QUESTION: What is silly or funny about this story? Johnny had one dime. He went to the grocery store and spent the dime to buy candy. Next he went to the drug store and spent the dime for a comic book. After this he was tired so he went home and put the dime in his piggy bank.
2. Conditions for this question: The students have been given explanations of three rules for classification: (A) Vocabulary clear in meaning; (B) Sufficient classes to include all data; (C) Classes discrete.
   QUESTION: What problems do you see in grouping mankind under the headings of white race, black race, and yellow race?
3. Conditions for this question: The class has studied the nature of induction and common errors in induction.
   QUESTION: A geography book stated that the prevailing wind in Wisconsin is from the west. The students in a class in Wisconsin wished to test this generalization inductively. They decided that the prevailing wind meant that the wind came from the west most of the time. During science class every school day for a week they sent a student to look at a weather vane on top of the school and record the wind direction. The results were as follows:

   Monday: West
   Tuesday: East
   Wednesday: South
   Thursday: West
   Friday: North

   The class studied the results and concluded that the geography book was wrong, because in order for the prevailing wind to be from the west, the results should have shown a west wind on at least three out of five days. Tell why you agree or disagree with the class conclusion. How would you improve the procedure for testing the conclusion?
4. Conditions for this question: The students have studied induction and the nature of the inductive leap.
   QUESTION: Following are figures on life expectancy at birth in Mas-

sachusetts. This state was the only one to gather these figures during the period from 1855 to 1902.

Life Expectancy at Birth in Massachusetts
(In Years)

1900-1902	46.07
1893-1897	44.09
1890	42.50
1878-1882	41.74
1855	38.7

Check all the conclusions that are justified for a historian to draw. Assume the figures are reasonably accurate.

____The life expectancy from birth in Massachusetts increased 8.37 years from 1855 to 1902.

____Life expectancy rose almost ten years in Massachusetts from 1855-1902 and probably rose comparably in other New England states.

____Life expectancy rose in New England from 1855-1902.

____Life expectancy was on the rise in the United States from 1855 to 1902.

Be prepared to defend your choices.

5. Conditions for this question: The students have studied a group of ten informal fallacies.

   QUESTION: React to the thinking in these cases:

   A. A congressman who had his wife on the payroll as his personal secretary was criticized for nepotism. He argued that she had long experience in politics and could perform the job better than anyone else he could hire. The congressman also noted that many of the most respected members of the House and Senate hired their wives.

   B. A survey showed that most wealthy men were Republicans. A Democrat commented that the survey proved that most Republicans were wealthy.

Synthesis Questions

The synthesis question asks the student to create something. The product to be created may be a physical object, a communication, a plan of operations, or a set of abstract relations. In other kinds of thinking there may also be products but the distinctive thing about synthesis is the great freedom students have in deciding what is to be created and how it is to be created. A synthesis question never has one correct response. There are always many good answers which students may work out.

1. Conditions for this question: A teacher suggests that a visit to a local factory would help the class understand more about manufacturing. The teacher says that the class can plan the field trip.
   QUESTION: What must we do to organize the field trip?
2. Conditions for this question: A box is to be inserted into the cornerstone of a new school. The students in a class are in charge of filling the box with things showing what it is like to go to school during that time.
   QUESTION: What do you think should go into the box?
3. Conditions for this question: A history teacher is leading his students to understand some of the problems encountered by historians as they practice their profession. The students have not been given any special preparation for this question.
   QUESTION: List as many conditions as you can think of that might lead a historian to lose his objectivity or logical rigor in interpretation of evidence.
4. Conditions for this question: Students are studying the "Progressive Era" in U.S. history.
   QUESTION: Write a "muckraking" poem.
5. Conditions for this question: Students are studying the "Roaring Twenties."
   QUESTION: Compose a collage that depicts the historical spirit of the "Roaring Twenties."

Evaluation Questions

The students are asked to make a value judgment of some product, communication, event, or situation. A value judgment is a rating of something as being good or bad; right or wrong; or perhaps beautiful or ugly. Part of the answer always requires the students to tell what considerations led him to make the judgment.

1. Conditions for this question: The primary students are studying about using the library.

QUESTION: Suppose a boy took a library book home and left it on the floor of the living room. His little brother found the book and tore out some pages. Do you think either boy should be punished? Tell why.

2. Conditions for this question: The students have studied the colonial period of United States history.

   QUESTION: Did the colonists do right in throwing the tea overboard at the Boston Tea Party? Tell why.

3. Conditions for this question: A high school class is studying social class.

   QUESTION: Classify the following occupations as being high, middle, or low in deserved prestige. Be ready to give reasons for your choice. Waitress, Policeman, Factory foreman, Federal judge, College professor, Taxi driver, Lawyer, Office supervisor, High school teacher, Editor, Insurance salesman, Barber, Riveter, Truck driver, Railroad engineer, Bank cashier, Top business executive, Physician.

4. Conditions for this question: The students have studied the civil rights movement in the United States. Cases of both nonviolent and violent breaking of laws have been noted but the following question has not been considered directly before it is asked as a written homework assignment.

   QUESTION: Under what conditions, if any, do you believe it is right for a citizen to break a law which he believes is morally wrong?

Using the Taxonomy of Questions

Following are some suggestions for using the taxonomy of questions.

1. In theory the categories of questions are sequential and cumulative in the order in which they have been stated. In other words, the higher categories include the kinds of thinking in the lower categories. Questions are classified at the highest level of thinking called for. For example, if a question calls for memory, translation, and interpretation, it is classified as interpretation.
2. The definitions of the seven kinds of questions overlap enough so that equally knowledgeable experts sometimes differ on the classification of a question. This need not disturb the classroom teacher because the quality of a question is unrelated to the precision with which it can be classified.

3. Above memory, the category that offers by far the most opportunities for questions is interpretation. Analysis questions are difficult to use without special curriculum building which focuses on logical processes but is potentially one of the most important categories. Synthesis and evaluation are exotic questions which are easy to compose but require real skill by the teacher to get truly reflective responses by students. These categories should not be employed very often in comparison to interpretation but when used should be developed thoroughly to avoid superficial responses. Seldom should synthesis or evaluation be used on a test because they require time to ponder.
4. Some kinds of subject matter lend themselves to questioning on the important interpretation and application levels and some do not. This creates problems for teachers because many social studies textbooks are loaded with inert subject matter that allows mainly memory thinking. Interpretation, the bread-and-butter category, requires functional ideas which can be used to classify, explain, solve, or subsume. Examples would be "evolution," "social class," and "culture." In addition, both interpretation and application questions require "new situations" related to the functional ideas. These take a form similar to the raw data needed in discovery strategies.
5. Examinations should call for the same kinds of thinking as the previous instruction. (The only exceptions may be synthesis and evaluation, for the reason noted above.) It does not make sense to instruct on a variety of cognitive levels and test only on the memory level. Neither is it logical to test students for kinds of thinking which haven't been practiced in instruction.
6. A teacher may be skillful at composing a variety of questions but fail in stimulating constructive thinking because of inability to create a psychological climate in the classroom in which students will want to cooperate. Such a negative climate forces the teacher to instruct mainly in the lower categories.
7. Good questions can be spoiled by poor wording which makes the question ambiguous or which offers contextual clues to the answer.
8. Completion, true-false, matching, and multiple-choice questions can be used in questions as high as the analysis category — but seldom, if ever, above. Discussion or essay questions can be used in all seven categories.

The research studies on the taxonomy of questions have focused on teacher behavior in asking questions rather than student behavior in answering. Several of these studies were cited earlier showing the proportions of questions that teachers ask in each category. One group of studies on student behavior has shown that transfer of training is promoted by having students practice using powerful ideas in new situations. In terms of the taxonomy of questions, this means that the application category promotes transfer better than total reliance on lower categories.

An interesting experimental study by Hunkins presented two questioning treatments to 260 sixth-grade students.[10] The students all spent about a half-hour a day for four weeks in individually writing answers to questions composed by Hunkins based on a unit as developed in a textbook. In Treatment A almost 50 per cent of these questions were in the analysis and evaluation categories as defined by Bloom, while Treatment B presented 90 per cent memory questions. At the end of four weeks, an examination was given in which students were tested on each of the categories of questions. The results showed no significant difference between the two treatments on memory. However, the students in Treatment A did slightly better in application and analysis and significantly better on evaluation questions. Hunkins concludes by calling for more experimentation because his investigation . . . *suggests that a continued use of high-level questions in the educational setting should stimulate pupils to be capable of working with information rather than regurgitating it.*[11]

SIMULATION GAMES

Another instructional strategy that currently receives much attention in education journals and meetings is variously referred to as simulation or gaming. An excellent survey of the rationale and status of this strategy is found in the first issue of Foreign Policy Association's *New Dimensions* series, entitled "Simulation Games for the Social Studies."[12] This publication points out that purists draw various distinctions between simulations and games, but that most teachers use the words interchangeably. Quite often "simulation" is used in presenting the plan to administrators because the connotation is constructive while "games" is used with students because the connotation is fun. Most of the games involve a kind of role-playing by students which isn't much different from sociodramas that teachers have long used in such activities as having students act out the operation of Congress or the United Nations, or in having students take over local government for a day.

Characteristics of Available Games

In simulation games the students participate in simplified versions of real life problems. For example, in a game called "Community Response" the participants assume such roles as mayor, civil defense director, and fire chief in a mythical community struck by a disaster.[13] Each role has specified responsibilities, resources, and certain personal family obligations. Pupils are called upon to make choices as to what should be done in carrying out their duties and whether or not they should neglect their official roles to try to save their own families. A point system gives indication of several kinds of success.

No game can include all variables which operate in a complicated social situation such as a community disaster. The more variables introduced, the more realistic the game is likely to be but unfortunately also the more difficult the game is to play. "Community Response" is an example in which realism is achieved at the expense of simplicity and it takes a Philadelphia lawyer a couple of long days to figure out the rules. Many less complicated games seem artificial. In spite of this, teachers will find that simulation games offer students a different kind of constructive learning experience than is normally encountered in the classroom.

One of the most attractive features of available simulation games is the importance of the social studies topics that are treated. Several games deal with international relations in the contemporary scene or at some point in history. Economic games treat problems in collective bargaining, consumer buying, farming, locating of a factory, the operation of the market in a capitalistic economy, and life in a society living near the survival line. The legislative process, the operation of special interest groups, and propaganda are explored in political games. Several games put students in roles of people in other cultures. One game explores parent-child relations, while another has participants make education, career, and marriage decisions for individuals in specified circumstances. Many of these games are still in the testing stages but increasing numbers are available commercially. The Foreign Policy Association booklet cited earlier has a good bibliography of sources.

Simulation games vary greatly in a number of respects. Some can be played in a single period while others consume class time for several weeks. Some require only two players while other games involve an entire class. Most of the simulation games that are available are appropriate mainly for upper elementary and junior and senior high school, but there are differences in the maturity of interest to which they appeal and the complexity of the operation required of participants. Some games require a considerable amount of equipment and materials which may or may not be expended in the process of play, and this in turn leads to a variety of prices of the commercially produced games. A few call for computer stations for participants.

Designing and Using Simulation Games

Some teachers have designed their own simulation games.[14] Some authorities recommend that students be assigned to design games. The steps in inventing a game are these:

1. Decide on an economic, sociological, or psychological problem area on which there are dilemmas in life decisions. Select a problem appropriate to the curriculum for the class.
2. Determine the participants needed to simulate the problem and construct a simplified model of the process necessary to deal with it.
3. Allot resources to participants and goals that lead them into the dilemmas.
4. Plan for sequences or stages of play and for a culmination of the game. Make the rules appropriate for those who will use the game.
5. Plan a debriefing.

An example of the invention of a new game for a ninth-grade citizenship class might treat the problems of network television at a presidential nominating convention. The networks want to attract viewers by playing up the sensational side of the news. At the same time they must avoid broadcasting false or distorted reports — especially if these reports might cause civil disturbances or lead to slander suits. A game might include three teams of network broadcasters and an audience. By drawing information cards, news from on-the-spot reporters and from the wire services could be fed to the broadcasters. Each team of broadcasters would judge the reports for interest, reliability, and importance and then decide which to pass on to the audience. The audience rates the presentation of each team on a point system for interest and for social responsibility. This is only the roughest first outline for a game but does illustrate the early stages of the process of choosing a social problem and constructing the model of a game.

After playing a commercially produced game or one that is homemade, a debriefing is likely to be one of the most valuable parts of the experience. Questions to be answered can be these: To what extent did the game accurately portray the problem and in what ways, if any, did it distort life? What knowledge or insights came from playing the game that would likely have been missed in conventional study of the topic? How could the game be improved?

Research evidence on simulation games is sketchy but several representative studies are offered here. The Western Behavioral Science Institute conducted a study of 40 simulation trials in 17 schools involving 30 teachers and 2,500 students.[15] The question was to test the feasibility of simulation games in the context of the curricula of operating school systems. The teachers attended a summer workshop and learned four simulation games dealing with social studies subjects. During the next school year each teacher tried out one or two games in his classes.

In reporting results, the authors caution that the organization of the project favored the chance of success with the games because the teachers were chosen specially for the project and the students turned out to be better than average. The data gathered consisted mainly of the affective impressions of students and teachers. Some of the games rated higher than others but on the whole both teachers and students agreed that the experience was worthwhile. Junior high students rated the simulation higher than did senior high students. There was some evidence that the simulations tested worked better with the more capable students. The report generalizes thus: *It appears that new materials (simulation games) should fit fairly comfortably within the existing curriculum and classroom procedure. . . .*[16] Under the head of "hunches" the report noted that one general weakness of schools is that students are passive learners. Simulation games are important because they may . . . *excite students about learning* . . . and . . . *help them learn how to learn.*[17]

Two simulation games requiring the use of a 1401 computer in individualized instruction were played by 25 sixth-grade students in another research project.[18] A control group received conventional instruction on the same topics. Each student in the experimental group sat before the computer and made decisions in the role of a priest ruler in ancient Sumer in one game, and as a United States A. I. D. official in the other. Some of the results were these: The games were initially as effective as the conventional instruction but the control group retained the economic principles longer. The more capable students gained more from the games. Student interest in the games was reported as high.

As with most research in education, it is hazardous to make broad generalizations about simulation games. The most that can be said is that some of the games operating under favorable conditions can yield results which students and teachers feel are worthwhile. This guarantees nothing but does invite teachers to try out simulation games in their own classrooms.

WILL DISCOVERY TEACHING, THE TAXONOMY OF QUESTIONS, AND SIMULATION GAMES FLASH AND FIZZLE?

The implementation of educational innovations on a broad scale has been relatively uncommon in the past. A prediction of the roles which the three strategies described in this chapter are likely to play in the next five years requires examination of some of the common practices of schools in dealing with *change*. As suggested in other chapters, both our schools and our society pay homage to change. However, basic misconceptions should be removed as to the means of implementing change in the schools.

The Problem of Motivation for Innovation

The first example of lack of realism in implementation of constructive curriculum change is failure to understand the range of motivations of innovators. The acceptable motive for pursuing improvement is to help students to be better educated and to help societies develop better citizens. This is certainly a worthy goal because there is ample room for improvement.

A second motive is seldom recognized even by individuals who are most subject to it; educators innovate in order to gain personal prestige and promotion. Whereas educational innovation has had erratic success in improving instruction, it has had remarkable success in gaining prestige and promotions for the participants. The leader of the instructional team is in line for a department chairmanship; the chairman of a curriculum committee is a good bet for the next opening for a principal; the high-school principal who puts flexible scheduling into operation has a fast start toward the superintendency; the superintendent of Podunk who installs closed-circuit television is well on his way to Big City or the State Department of Public Instruction.

The reason innovation can lead to promotions whether or not it leads to improved learning is that the success of many projects is judged by observing organizational means rather than learning ends. Establishing a respectable instructional team which can be reported in journals, professional meetings, and PTA's is enough visible sign of progress. Evidence of improved learning is not necessary.

Self-interest is a perfectly legitimate motive for innovation. The fault lies with schools that endorse projects on the basis of superficial evaluation. This deficiency is one of the reasons why so many widely advertised teaching strategies never get into operation on a broad scale. The curriculum guide that incorporates the "new strategy" may be impressive but unworkable. When the new guide is distributed there is an unstated implication that a teacher who does not understand it or who cannot make the "new strategy" work is somehow incompetent. What teacher dares admit this kind of failure? A more practical response is to file the bulletin quietly in the desk drawer. If the administrator's copy of the guide looks good on his shelf, then the author of the guide is likely to get his promotion and probably believes that his innovations have been carried out.

Innovation and the Teacher

A second reality often ignored by educational innovators is that teaching is a psychologically hazardous profession. After a day or so of school in September, the teacher knows whether he is going to have a comparatively easy year or a tough one. The social and psychological ingredients that lead to a collective class personality seem to defy logical analysis. Whatever the causes may be, an important fact is that with some classes the teacher can focus on strategies of learning while in others he must focus on strategies of survival. The vast majority of these latter classes are not blackboard jungles. They are composed of restless youngsters who cannot figure out why they should be trapped in the classroom doing things and obeying rules that do not make sense to them.

There are tremendous differences among teachers in their abilities to lead students to cooperate. Those who are skillful can risk trying out new instructional strategies in most of their classes. A significant number of teachers are so insecure in maintaining class control and respect that they are frightened when asked to do anything differently. This is particularly true with innovations that make the teacher more vulnerable. Strategies calling for students to talk to each other or move around the room in individual or small group enterprises are dangerous. Strategies are hazardous that call for subjective thinking because students can argue with the judgment of the teacher. Large groups of students are often difficult to control. Any plan calling for teachers to observe each other teaching causes an extra strain for those who are less than completely self-confident, because failure becomes public knowledge. Evidence abounds that most classes have all students seated in desks in straight rows listening to the teacher, reading a text, and writing answers to questions, or responding to questions in recitation. It is significant that these are the safest ways for the insecure teacher to retain control and at least the outward signs of respect.

The three strategies described in this chapter present certain problems which some teachers find difficult to tolerate. Simulation games often remove the teacher from center stage and also permit discussion and movement by students. The noise index is likely to rise higher than is usually the case. In recitation with memory questions there need be no lapses because students either know answers or do not and there is little gained by waiting for an idea to come. However, with higher categories, thinking time is needed — time which some uninterested students can misuse. Particularly with synthesis and evaluation questions the teacher must have the interest and cooperation of the class in order to have a productive lesson. The divergent nature of synthesis thinking permits students to offer silly answers to questions if they want to bait the teacher. The subjective nature of thinking of the top two categories also means that the teacher cannot play the traditional role of passing final authoritative judgment on every student response. This is a role which many teachers are reluctant to give up.

Seldom are recommended strategies suitable for all classes and teachers. Discovery exercises should be used with all students by those teachers who can handle the strategy successfully. Evaluation and synthesis questions are easy to compose but it takes teachers with a certain temperament and prestige with students to incorporate them into instruction successfully. These teachers should specialize in the top categories of thinking.

Another consideration that is often unrealistically ignored in implementing new strategies is the differences in the amount of time and effort that individual teachers are willing to expend. Educators like to preserve the image of the teachers who arrive early at school to prepare lessons, conduct classes all day, work with individual children after school, and then take a pack of papers home to correct or spend the evening reading *Scientific American*. It would be interesting to know how many teachers actually fulfill this image, but my guess is that it would be a minority. Perhaps the surprising thing is that there are any teachers this dedicated, for under conditions that prevail in many schools, the rewards of dedication are relatively intangible and the results of far less effort are not disastrous to employment, security, or reputation. After a few years of experience, it is possible for a teacher to work only during the minimum required school hours and even relax during a so-called preparation period. The textbook becomes the course of study. Objective tests can be used year after year and corrected by students in class. Special activities prepared by students are given only cursory correction or not returned. These teachers may still work hard because conducting classes of 30 or more restless children is likely to be exhausting. Much of the time these teachers do an adequate, though not an inspired, job by traditional standards. A paradox of education is that a teacher can do a minimum and get by, or work far *beyond* the call to duty and achieve very little more student learning, as judged by conventional testing. This is certainly no axiom but is a common occurrence.

Strategies of instruction calling for a great amount of preparation or for time-consuming evaluation are not likely to be exciting to an 8:00 A.M. to 4:00 P.M., five-days-a-week teacher. Such teachers are not working for promotion and often fulfill themselves in church work, clubs, or family activities. Many men get recognition for maintaining an impressive home and lawn, or in golf, bowling, hunting, and fishing exploits. Coaching school teams is an excellent opportunity for public recognition that does not come to classroom teachers. Women teachers travel to Europe and then show slides to the AAUW. These avocational opportunities for fulfillment are much greater now than ten years ago because the salaries of teachers — especially men with working wives — enable them to "live the good life."

The teaching strategies that focus on discovery, on the taxonomy of questions, and on simulation demand more of the teachers' time and energy than do traditional expository procedures. Partly this results from lack of enough of the kinds of instructional materials that lend themselves to the strategies. It is doubtful that teachers will adopt these strategies on a broad scale until instructional materials are substantially modified in the format that allows more varied student participation. These materials would offer teachers several ways to instruct a unit built around powerful ideas. The materials would not be physically bound together; so a teacher could give or withhold information depending on the chosen strategy. Some materials available would be expository and some would be accompanied by raw data and questions asking students to use the powerful ideas in new situations. These exercises should be pretested by publishers with the elaborate care given to writing and testing individual frames in good programmed materials. By this process the publisher could present teachers evidence on lessons appropriate for students of various talents and motivations. Another version of each unit could present a tested way for introducing ideas to students through some degree of discovery.

If the approaches to inservice work that are suggested in Chapter 10 were widely implemented, many of the problems involved in promoting innovation could be alleviated considerably. The great untapped resource of time for curriculum building is the summer vacation. Real planning, implementation, and evaluation of the kinds of strategies described in this chapter require intensive preparation by a substantial staff of well-paid teachers during the summer under good administrative leadership. After plans have been developed, they could be introduced to all the appropriate teachers in the days (or, if necessary, several weeks) before school begins in the fall. Inservice sessions held during the school day through the year could provide support for the teachers who are implementing the new program. Getting funds for such a program may not be as difficult as the problem of planning for productive summer curriculum building, with follow-up implementation during the school year. Especially in the first years of trial, this process is often inefficient because it requires approaches and skills that are unfamiliar to many teachers and administrators. Careful preparation is essential in order to make good use of the ingenuity of the teachers and to create a product that can be implemented effectively.

Most school systems arm themselves with a pea-shooter for curriculum building programs that require nuclear energy. It seems reasonable that a district should be willing to spend three to five per cent of the total operating budget each year for curriculum improvement. Few districts come anywhere near this. Too often schools are defensive about criticism of curriculum. A better posture would be for administrators and teachers to say to the public, "We can do better if we have the chance for a sustained curriculum improvement program."

Research as an Aid to Innovation

Finally, educators have been unrealistic in expecting much help from research as it is currently conducted. It would seem that research would offer the best means of measuring the relative merits of exposition and discovery strategies, for example; but past experience fosters little optimism. Classroom teachers in elementary, junior, and senior high schools live in a different world from the college-based researchers. The researchers point to gross errors in the intuitive conclusions of the teachers. They prefer to rely on empirical evidence, sophisticated designs, and statistical analyses. The teachers retort that research is usually impractical. Too often it is an investigation of insignificant variables or else of variables that are outside the control of the teacher. The problems to be studied are often too narrow for practical use. These artificial research problems serve the need for tight analysis or fit time deadlines for graduation of student assistants, for publication dates, or for final reports for U. S. Office of Education grants. Too many research problems are chosen for study because they are convenient for researchers rather than significant to the needs of the schools.

Another reason why research as currently organized and conducted will probably not lead to clarification of the merits of contrasting strategies, such as exposition and discovery, is that the researchers are not interested in carrying the process to application in the schools. The end product for the university researchers is a written report. This might appear to be dissemination of information; but in a way it is not, because too often the report is written in esoteric language comprehensible only to other researchers. A research project is considered successful if it yields an analysis that stands the critical scrutiny of fellow researchers. The usefulness of the results to the schools appears only incidental in most cases. While statistical analysis is made public, the treatments are described in generalities. For example, a researcher may report that he taught 30 lessons designed to improve creativeness. The results may prove beyond chance that the experimental group gained more in creativeness than did the control group. A teacher impressed by the results cannot use them because he would have to study the 30 lessons and they are almost never published in the report.

Meaningful research on the strategies described in this chapter requires a broad coordinated attack instead of isolated experiments. Rather than attempting to find a global advantage for exposition, directed discovery, or pure discovery, the experiments should concentrate on specific subject matter ideas, such as the function of land, labor, and capital in production or the nature of social class. Contrasting strategies would be tried at different grade levels with proper controls. The same pattern of research is needed on specific simulation games.

In conclusion, the classroom strategies summarized in this chapter seem to be worth further investigation by teachers. None of them is revolutionary in the sense of offering ideas never tried before. All aim at a more systematic use of strategies that some good teachers have long used. All are general in nature and need much more investigation in the classroom to discover the full range of variations. None should be considered usable by all teachers or all classes.

The most difficult change to achieve, but an essential one, will be the modification of role expectations of teachers and students. More teachers must learn to envision themselves as more than idea-givers. They must learn to feel as much satisfaction in leading the student to reason out ideas independently as in demonstrating their own command of information and ideas. Also, they must help students revise their own conceptions of what social studies learning involves and how it is achieved so that students, as well as teachers, will value growth in thinking abilities and command of powerful ideas over mere retention of specific facts.

FOOTNOTES

[1] Hoetker, James, and Ahlbrand, William P., Jr. "The Persistence of the Recitation." *American Educational Research Journal* 6: 145-167; March 1969.

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[4] *Ibid.*, p. 91.

[5] Lawrence, Gordon D. *Analysis of Teacher-Made Tests in Social Studies According to the Taxonomy of Educational Objectives*. Claremont, Calif.: Claremont Colleges, 1963.

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[10] Hunkins, Francis P. "The Effects of Analysis and Evaluation Questions on Various Levels of Achievement." (Paper presented at the American Educational Research Association National Convention, February 7-10, 1968.)

[11] *Ibid.*

[12] *Simulation Games for the Social Studies Classroom*. New Dimensions: Booklets on the Social Studies and World Affairs, Vol. 1, No. 1. New York: Foreign Policy Association, 1968, 56 pp.

[13] "Community Response." Baltimore: Department of Social Relations, Johns Hopkins University.

[14] See, for example:

Gearson, John D. "Labor vs. Management: A Simulation Game." *Social Education* 30: 421-2; October 1966; and

"Simulation and Stimulation: Teaching Politics and Government in High School Social Studies." *Social Education* 32: 273-8; March 1968.

[15] Sprague, Hall T., and Shirts, R. Garry. *Exploring Classroom Uses of Simulations*. La Jolla, Calif.: Western Behavioral Sciences Institute, 1966.

[16] *Ibid.*, p. 19.

[17] *Ibid.*, p. 20.

[18] Wing, Richard L. "The Production and Evaluation of Three Computer-Based Economics Games for the Sixth Grade." *ERIC Research in Education*, April 1968. p. 60.

CHAPTER SIX

John S. Gibson

Selecting and Developing Social Studies Instructional Materials

Instructional materials comprise a vital part of the teaching-learning process in the school. They convey messages to students and also often determine the structure for the curriculum itself. The content of social studies instructional materials, in varying degrees of quality and authenticity, provides the learner with foundations of knowledge about man and society, past and present. Indeed, many school systems and teachers rely upon instructional materials, especially textbooks, for organization and sequence for social studies courses. The type of materials that are used has a powerful influence on how social studies courses are presented to the student. Although recent experimental propects have made many contributions to innovative design and packaging of instructional materials, the standard textbook has remained the bulwark of the social studies program in the vast majority of our nation's schools. However, some predict that a "materials revolution" will change social studies programs significantly in the years ahead. An examination of the role played by both traditional and innovative tools for learning can reveal guidelines for reassessing their function and increasing their utility in the process of education.

Books, monographs, maps, globes, films, tapes, transparencies, and other instructional materials are standard fixtures of any modern social studies curriculum. The publishing establishment has thrived since World War II in selling materials to schools so that more than fifty million students annually will be able to read, see, hear, and touch messages which educators consider to be a part of social studies education. More recently, industrial giants, such as Raytheon, General Electric, the Columbia Broadcasting System, Xerox, and International Business Machines, have acquired control over major publishing houses or have entered this lucrative market on their own. American industrial enterprises have discovered that the instructional materials market is big business indeed. Firms with an orientation toward communications and technology have invested heavily in innovative uses of computers and closed-circuit television, anticipating that electronic media will replace the more standard written materials as means to enlighten students in the years to come.

Although the 1970's will be a decade of change in many ways, the transition from the traditional to the electronic classroom or some other radically different kind of learning environment probably will not be swift or abrupt. Whether school systems have the resources to purchase or rent such costly devices as computers and closed-circuit television systems, whether teachers will be trained to use them effectively, and whether effective "software" will be developed to use in the "hardware" are questions to be resolved. A prior issue, however, is whether electronic materials can serve the ends of social studies education better than more traditional tools, such as books, films, topical pamphlets, paperbacks, and audio tapes. Undoubtedly, research and evaluation will help to provide some significant answers to this question, but the evidence as to the relative effectiveness of the different types of materials is not in, as yet.

The fact remains that many types of learning materials are now available for social studies instruction and will be increasingly so in the decade ahead. This variety can make a significant contribution if it can be shown that the different media really advance students toward desirable goals in social studies learning. Melvin Tumin has written that:

> *There is one major question to ask when choosing or developing curriculum: What do we want our children to become? If we translate this question into somewhat more operational questions, these would*

include: What do we want our children to come to value? *What do we want them to be able to* feel and see and hear and smell and touch? *From what do we want them to learn to* get pleasure? *What do we want them to understand about themselves and the* world of nature and man? *How do we want them to* behave *toward* other human beings? *To what do we want them to be inclined to* commit *themselves? What technical* abilities *do we wish to* cultivate *in them?*[1]

Irrespective of the position one takes on priorities among social studies goals, if instructional materials can be developed to respond to questions such as those posed by Professor Tumin, then they will in all probability advance students toward desirable objectives. Although instructional materials are available today to open more doors to learning for students than formerly, problems arise as well. It is therefore necessary to examine some styles, variations, and innovations in the instructional materials of today, identify some things instructional materials must be and do, and relate them to the teaching-learning process. Then we can make some useful observations on the selection of materials in relation to goals for the social studies.

INSTRUCTIONAL MATERIALS: STYLES, VARIATIONS, AND INNOVATIONS

The wide range of social studies materials that are available has been noted above. A brief survey of some styles and variations of these tools for learning will provide a basis for examining their role in the teaching-learning process.

Reading Materials

As the "old reliable" of education, the textbook is and will probably continue to be for some time a standard organizational device for a social studies program and for student learning. In the primary grades, a variety of social studies textbooks are used in many classrooms, although at the intermediate and secondary levels, one basic book for each course remains the traditional approach. Supplementary texts are widely used, as well as paperbacks and unit texts. Portfolios of materials are being developed, including pamphlets, maps, and primary content matter. Whatever the combinations, however, the hardcover text predominates.

The textbook is relatively easy to order and to use in the classroom and generally serves as a wide-ranging foundation for the subject matter in any course. Few object to the continued use of the textbook as such, but many do raise important questions about the content of the book, about how this content can be taught and learned, and as to whether other materials can be used along with the textbook.

In recent years, as well as in the past, much inquiry has been devoted to the kinds of messages conveyed or not conveyed to students by the content of textbooks. Shaver has engaged in several studies along these lines. Seasholes has devised a survey instrument for content analysis of leading high school social studies texts. Both found that most textbooks lacked diversity in dealing with social issues, avoided controversial subject matter, and were generally didactic in presentation of facts and data.[2] A number of other studies focused upon how elementary and secondary social studies textbooks dealt with intergroup relations in the United States, and the findings have stimulated the development of materials which seek to provide more historic authenticity and environmental realism in this critical area of American life.[3] For example, Negro and other minority "history" has been included increasingly in new textbooks and in new editions of old ones, although many would agree that much more attention to this area is needed and that the treatment should be an honest one, even if some traditional heroes and myths suffer in the process. Surely there can be no question that American history should be presented to students in a realistic, accurate, and colorful manner, or that students should gain a view of the American past and present which mirrors both the greatness of our society and some of its abrasions and shortcomings.

Another criticism of the usual textbook is that it preaches to students. It does not tend to support the inductive approach to teaching or to provide springboards for student discovery or contemplative inquiry. One must admit that such an approach is difficult to provide if the teacher preaches as well; however, given the strong thrust toward involving the student in the teaching-learning process, the standard textbook must make some concessions along these lines. The series of high school social studies texts developed at the Carnegie-Mellon Institute, under the aegis of the Project Social Studies Center, represents a pioneering attempt to incorporate an inquiry approach into basic texts.[4] One may safely predict that the 1970's will see many more textbooks which break away from a purely didactic approach.

Most textbooks do have bibliographical sections at the ends of chapters, and teacher's manuals accompanying these texts recommend accompanying readings, films, and filmstrips. Too often, of course, these listings are ignored by students and teachers alike, and rarely are readings and audio-visual materials suggested as integral parts of the subject matter of textbooks. Any author who writes in one of the various social science fields organizes the content within the context of his own perceptions of man and society, past and present. He must be selective, as the subject matter is almost infinite; but in being selective, he is also being subjective. The teacher who relies solely upon one textbook by one or two authors is therefore encouraging students to become familiar with only one perspective on history or the other social studies subjects. Books offering selected readings, casebooks, or other paperbacks and single-topic treatments, as well as pertinent films, filmstrips, and recordings, permit balance and a different style and approach to the subject at hand. One might say that the standard textbook can continue as a solid tool for learning providing that its content reflects many approaches instead of one to the subject being studied, that it facilitates student engagement in the process of education, and that it recommends materials by other authors which give various points of view about the topics and subjects being studied.

Recent trends in providing flexibility for the teacher in selecting written instructional materials provide much hope. The Amherst College paperback series entitled "New Dimensions in American History" is an example of text material that includes many secondary as well as primary sources for the high school student. The High School Geography Project has developed topical booklets and accompanying materials designed to relate the subject matter of geography to urban problems and other important social issues. The Sociological Resources for Secondary Schools Project and the Anthropology Curriculum Study Project, working at the secondary level, are producing similar materials. Case study material is being developed at the University of Minnesota Project Social Studies, and a series of casebooks comes from the Harvard social studies project dealing with social and political conflicts and controversies. These unit booklets are designed for use in any American history, civics, or problems course. Unit texts and pamphlets on a variety of social studies topics, and for all grade levels, are increasingly available. These are being developed by commercial publishers as well as by social studies curriculum projects.[5]

The values of literature as a resource for social studies programs have long been recognized, although this recognition has been honored more in theory than in practice. Historical fiction, both juvenile and adult, which has authenticity of setting and detail can provide a sense of reality and significance to the study of past events. Novels and stories in which protagonists face social issues and must arrive at value decisions can have affective impact and help students to clarify their own value patterns. In addition to fiction, many juvenile biographies and special-topic books are available at both the elementary and secondary levels. These types of reading materials should be treated as basic resources for the social studies program, rather than as supplementary materials to be used at rare intervals, as is too often the case in many classrooms today.

Current Affairs Materials

Newspapers, magazines, and various periodicals still find use in the social studies curriculum, and deservedly so. In addition to daily newspapers and weekly news magazines, current affairs materials prepared especially for classroom use are available. The latter include materials adapted from newsstand publications, as well as weekly newspapers or magazines prepared specifically for the classroom. More schools are using adult periodicals such as *Life, Look, Atlantic Monthly, Harper's,* and *Foreign Affairs* in advanced social studies programs. All of these publications can be valuable parts of the social studies materials system, along with other materials, providing they are used to fortify the teaching and learning of social studies subject matter. If they are deployed in the classroom as something apart from the social studies curriculum or as timefillers, their value to the learner will be considerably limited.

Geographical Tools

Maps and globes are essential to geography and history studies as well as to work with many topics based on the other social sciences. In their modern versions, they are more effective learning tools than in former days, as study of current catalogues from leading producers will show. Three-dimensional maps, transparencies which identify inner-city problems through geographical designs, and tools for students which enable them to discover geographical concepts are all to be commended. The High School Geography Project has pioneered in these and other innovative approaches to make geography a more significant and complementary part of the social studies program. Other social studies curriculum projects also utilize geographic tools as part of their materials systems.

Sights, Sounds, and Computers

When we get into the area of sights, sounds, and computers, we must consider not only their content and their potential as learning tools, but also the mechanics of these important instructional resources. Some data on available and desirable "sight and sound" machinery were collected by the Research Division of the National Education Association in 1967 through a sampling survey which included 1,609 teachers from all parts of the nation. Survey results are shown in Figure 1.[6]

It appears that many teachers do have most of these tools available to them and that they are using them as integral parts of their teaching program. There is some ambivalence with respect to newer technologies, such as computers and closed-circuit television; however, most teachers apparently are at least willing to explore ways and means of using them in the classroom. It should be noted that the survey sample included teachers of all subjects in the schools. There is probably considerable variation in teacher reactions from one curriculum area to another. There are also variations, from one field to another, in the extent to which the potential of particular tools has been explored thus far. Computer-assisted instruction, for example, has been used experimentally in teaching reading and arithmetic, but its application to social studies learning has barely begun. Nevertheless, the survey data suggest that teacher attitudes are generally favorable to the use of a range of instructional media. One may assume that social studies teachers share this view.

The great potential of conventional audio-visual materials — pictures, slides, filmstrips, and films — for social studies learning has long been acknowledged, and many of each type are available. If such materials are of good quality, they can bring visual evidence of social and historical reality into the classroom. One would wish they might be used more frequently for inductive teaching rather than for the flat presentation of social studies subject matter which often, or even usually, occurs. It is true that many, probably most, of these materials that are now on the market are expository in nature. Creative teachers,

FIGURE 1

Percent of teachers having resources available

	All teachers	Elementary	Secondary
Phonograph	92.8%	95.8%	89.4%
Silent filmstrip projector	92.3	93.1	91.4
Charts and maps .	84.8	88.1	81.1
16mm motion picture projector ...	84.5	80.3	89.2
Overhead projector	83.3	79.3	87.8
Audio tape recorder	78.4	76.6	80.4
Opaque projector .	72.8	68.7	77.3
Sound filmstrip projector	54.4	45.4	64.5
Educational TV broadcasts	36.3	47.8	23.4
Programmed instruction materials ...	34.9	36.3	33.3
Commercial TV broadcasts	31.0	33.5	28.1
8mm motion picture projector ..	27.2	21.2	33.9
Closed circuit television	11.1	12.5	9.5
Computer-based teaching terminals	3.2	2.6	4.0

Percent of teachers using resources

	All teachers	Elementary	Secondary
Silent filmstrip projector	81.2%	89.0%	72.2%
Phonograph	79.0	92.8	63.3
Charts and maps .	77.4	85.0	68.7
16mm motion picture projector ..	74.3	74.1	74.6
Overhead projector	61.5	59.3	64.1
Audio tape recorder	53.8	61.2	45.5
Opaque projector .	49.4	54.0	44.2
Sound filmstrip projector	43.9	40.8	47.6
Programmed instruction materials ..	28.6	31.3	25.5
Educational TV broadasts	26.1	40.1	10.5
8mm motion picture projector ..	16.0	15.4	16.6
Commercial TV broadcasts	13.5	16.2	10.4
Closed circuit television	7.0	10.2	3.4
Computer-based teaching terminals	1.4	1.0	1.9

Instruction resource most desired

	All teachers	Elementary	Secondary
Educational TV broadcasts	22.9%	21.3%	24.7%
Programmed instruction materials ..	18.4	18.4	18.4
Closed circuit television	18.3	13.7	23.6
Opaque projector .	7.7	9.9	5.1
Computer-based teaching terminals	7.3	6.0	8.9
Sound filmstrip projector	7.0	10.2	3.2
Overhead projector	5.9	6.5	5.1
Audio tape recorder	5.6	6.9	4.0
8mm motion picture projector ...	1.9	1.8	2.1
Charts and maps ..	1.8	1.5	2.3
16mm motion picture projector ..	1.5	1.9	1.0
Phonograph	0.8	0.8	0.8
Commercial TV broadcasts	0.7	0.8	0.6
Silent filmstrip projector	0.3	0.3	0.2
Total	100.1%	100.0%	100.0%

however, have found ways of utilizing many of them in an inquiry context. For example, after students have developed hypotheses about the problem at hand, they may collect pertinent data by studying still pictures, slides, films, and/or filmstrips as well as books and other materials. They can compare the information presented in the various sources and use the results to check out their original hypotheses. Such materials need not always be viewed by an entire class in a group situation, but may be assigned as alternative study material. Individual viewers for slides and filmstrips are found in many classrooms at present; schools that do not have such equipment can obtain it at little cost. "Film readers," which load easily and can be used for individual or small group viewing of silent or sound films, are also available, though this equipment is more expensive.

Teachers have also found ways of compensating for the expository emphasis in such materials. When a filmstrip is presented to a class group, it need not be shown in its entirety; instead, particular frames or sequences may be used to stimulate questions and raise problems. Many sound films now available "tell everything," so that students are encouraged to receive passively rather than to react actively. A good silent film, by contrast, may help the student to think and compare what he sees to his own experience. The audio of many films may be turned off and produce a similar result.

Some audiovisual materials are available that are designed to facilitate inductive approaches, however; hopefully, their number will increase. There are sets of still pictures that present visual data about various cultures, with no accompanying text; pupils may be asked to identify similarities and contrasts and draw conclusions from their analyses. There are filmstrips in which problems are posed for students to consider before they examine relevant data that are presented in succeeding frames; the accompanying teacher's guides suggest that pupils be encouraged to formulate hypotheses about possible solutions to the problems and then check their ideas against the data that are given later. Open-ended films, such as those on "Practical Politics" produced by the Lincoln Filene Center, give the student opportunity to discuss and debate the unresolved issues presented in the film. A series of films for the intermediate grades has been produced which deals with structures of geography and political science and provides the student with room for relating the here and now of his life to ideas presented in the films. Documentary films on exciting pages in American life of recent decades — for example, films dealing with recent presidential elections and critical cases that have resulted in milestone decisions by the Supreme Court — provide data to be used in exploring significant events and issues.

Television's potential for social studies teaching has not, as yet, been significantly realized, although an increasing number of school systems are utilizing it in one form or another. One problem has been that of scheduling. A presentation on educational or instructional TV may come at the wrong time of day or at the wrong spot in the course for a particular class to use it. Televised realities, such as the President's annual state of the union message or United Nations debates during a crisis situation, also present schedule problems. The increasing use of videotape recorders permits teachers to record such events and to present them to students at a time suitable for classroom discussion. Recording commercially sponsored programs presents a different situation, of course, since copyright is involved.

Another problem with instructional television, as it has been used for the most part, is that its approach has been largely that of the "talking face," with few opportunities provided for active student involvement in the teaching-learning process. A recent report of an evaluation of social studies telecourses, 33 for elementary school and 41 at the secondary level, makes the point in these words:

> *Most lessons leave little room for children to deliberate. In most cases, television treats children as passive listeners and observers. Too often there are too many lessons in one course, thus forcing classes to spend all their social studies time with television.*[7]

Perhaps this expository approach is inevitable if the TV lesson is assumed to be a talking textbook that carries practically the entire burden of instruction, with the TV instructor cast in the role of telling, explaining, and showing. Critics of this assumption have argued that:

> *Television . . . should be, then, more than a mere conveyance which makes the "best" teachers available to the greatest numbers of students. Instead of using the medium to do what the good teacher can do, it should be used to do what the good teacher cannot do.*[8]

"What the good teacher cannot do" would include a variety of presentations, such as: dramatized episodes developed in authentic locations; field trips via TV to industrial plants, courts, and other settings where activities pertinent to social studies topics and problems are carried on; interviews with significant people who could not visit each classroom, but who have expert testimony to contribute to pupils' study of particular issues and problems; and presentations of problem situations that involve value decisions, left open-ended so that students have a springboard for discussion and clarification of values. Such materials would not constitute complete courses, but would be utilized at appropriate points in the year's work. This approach was recommended by the NCSCT panel of evaluators:

> *The specialists oppose long series of lessons providing complete and comprehensive coverage and favor a limited number of excellent depth studies designed to stimulate classroom analysis and deliberation. . . . In relation to the need for open-ended lessons, those involved in producing materials are urged to become familiar with the problem-solving approach. Social studies deals with human relationships. Television can present actual conflicts and issues, and allow children to suggest possible solutions. . . . To eliminate the information giving, descriptive approach in teaching social studies, telecourses ought to be organized around basic concepts. Furthermore, skills, including map skills, should be taught in context.*[9]

A few school systems have made some beginnings in the direction proposed by the NCSCT evaluators. If such a conception of television's role were fully developed, ITV could move away from "telling too much" and become a valuable learning tool in social studies programs.

Overhead transparencies and masters for making them have appeared on the market in considerable numbers in recent years and are widely used. In the view of this writer, however, many of those which are commercially available lack creativity. Much of their content might be made available to students more effectively in some other form. As with other media, too often transparencies are employed for "show and tell" presentations in which the student's role is that of a passive receiver of information rather than that of an active inquirer. This situation need not exist. Transparencies can be designed to carry data for inquiry-oriented studies, even though this has not been done to any extent. At present, perhaps the most exciting use of this medium is found in classrooms where students are encouraged to seek out data and make their own transparencies for class use. This aspect is discussed more fully below.

4

Tapes and records are audio devices of importance. Appropriately employed, they can bring a sense of reality to the investigation of many social studies topics. Audio-tapes can be especially effective if students are permitted to tape their own interviews with resource people and their own classroom presentations.

As noted above, efforts to use computers for social studies instruction are in their infancy. Nevertheless, reports are beginning to appear about experimentation with computer-aided instructional programs and devices.[10] A number of more extensive studies are also focusing on "the new media" and their potential for the social studies.[11] Undoubtedly the 1970's will witness many pioneering uses of the new technology, but this will depend upon the ingenuity of the programmers and probably upon a substantial advance in the mechanical aptitude of teachers or audio-visual specialists in the schools.

Other "Innovative" Materials

Two additional types of learning material that are recent additions to the social studies materials system are programmed units and books and simulation games.

A number of programmed units and textbooks for social studies are on the market. Thus far, those that are available are restricted to the teaching and reinforcement of specific skills or of pre-selected factual information. Some teachers have found them of value for the limited purposes for which they are designed. Whether or not such auto-instructional materials can — and will — be designed to develop more complicated intellectual and affective processes remains to be seen. Some proponents of programmed instruction have argued that it is possible to do so.[12]

Simulation games are receiving considerable attention as a means of engaging students' interest and motivation for study of social studies topics. The reader is referred to Chapter 5 for a discussion of the general format and use of this kind of learning material. Here it is sufficient to note that the number of simulation games that are available and the range of topics treated through this resource are increasing rapidly.

This brief and necessarily wide-sweeping discussion of available instructional materials gives some idea of the variety and breadth of classroom tools for learning. Not very many schools have all these resources available, and many schools are limited to only a few. The key question remains: What should be the contribution of these materials in terms of structure and substance and in making relevant contributions to the teaching-learning process?

INSTRUCTIONAL MATERIALS: RELEVANT DESIGN

Research and development efforts in the social studies have either reaffirmed convictions held by many about what constitutes a relevant social studies program for the schools or have suggested innovative approaches to improving the program. Previous chapters in this book have focused upon recent findings which must receive serious consideration by any social studies educator. Although these findings have various implications for designing instructional materials so that they will have genuine relevance for the teacher and the learner, four appear to have paramount importance for our consideration in this chapter. To put the matter concisely, instructional materials must be authentic, must permit student engagement in the teaching-learning process, must reflect the social realities of the community at large, and must provide for teacher *and* student involvement in the preparation of much of the materials. These are the imperatives of social studies materials for the 1970's.

Authenticity

Authenticity means accuracy, balance, and extensive use of primary material. *Honesty* may be a better word. In any event, the social studies should convey the truth to students.

Accuracy. Accuracy, according to Webster, means "freedom from mistake or error." No author or editor could possibly develop materials which are absolutely accurate in this sense, but certainly the content of any written, audio, or visual materials should have a very high degree of accuracy. This necessitates excellence of scholarship by the author and thorough editing by a competent publisher. On the whole, most social studies instructional material is reasonably accurate. True, one widely used pamphlet cites the fall of the Bastille as taking place in 1779, another has an incorrect number of nations attending the United Nations conference at San Francisco in the spring of 1945, and other such examples probably could be found. Generally, however, social studies materials used in the schools cannot be charged with inaccuracy.

Balance. The principle of balance, or a presentation of facts and interpretative matter which reflects various sides to a question or issue, has been a serious problem in many social studies instructional materials. Another way of viewing balance is the identification of gaps in the treatment of topics and subjects.

For instance, researchers have recently pointed to many gaps with respect to the treatment of minority groups in social studies materials dealing with United States history and contemporary life.[13] The Negro is viewed largely as a slave and not as making important contributions to the development of the United States. The American Indian is generally depicted in terms of the stereotyped Dakota, with his flowing headdress and his savage actions in thwarting the westward movement of the white man. Jews, Irish, Italians, and many others are referred to as constituting the immigration waves of the nineteenth century, but generally are not mentioned after that time. In short, the pictures that are used and the leaders who are selected for treatment usually suggest that the white Christian is the creator and protector of American greatness.

Criticisms also note overdoses of chauvinism in the history of the United States; history textbooks in almost all nations are overly eager to demonstrate the intrinsic greatness of the role of nation-states with respect both to internal development and to their respective roles in world affairs. If international understanding as an objective for social studies in the United States and in any other nation is to be valid and viable, a much more realistic and balanced treatment of the events of the past is in order.

In elementary social studies textbooks, we must see Dick and Jane as real persons with troubles and conflict as well as serene suburban happiness. That is the way it is! If we are to study the inner city, we must see the slums as well as the shiny buildings. The farm is not only a happy grazing place for cows; it also has droughts, poor market periods, and manure. Occupations such as plumbing and truck driving should be depicted along with nice storekeepers and neat businessmen.

A survey of the free enterprise system should also include the extent to which the United States government owns or controls many facets of the American economy. Study of formal procedures by which bills are passed into laws should be balanced by consideration of other means used to shape legislation and national policy, such as sheer politicking, pressures by vested-interest groups, and many kinds of trades and bargains.

Any categorical presentation about man and society, past and present, should be inspected carefully by one who judges instructional materials. Are there other points of view on this matter which students should consider? Is the author, consciously or unconsciously, presenting a point of view that does not reflect other positions or facts? Are adjectives and adverbs carrying the reader down one line of thought and toward only one way of reasoning?

Balance might well be equated with objectivity. Too often, however, *objectivity* is taken to refer to "value-free" content matter, and this is not the meaning here given to balance. Any author can present balanced material, but he inevitably conveys some of his own value orientations along with the development of his materials. By balance, we mean giving the consumer of the book, the film, or the tape an opportunity to read, see, or hear more than one side of an issue. We assume, however, that values are implicit or explicit in any set of messages, and, therefore, no materials really can be truly objective or value-free. At times it may even be valuable to see different points of view from unbalanced items. These could elicit creative thinking and actually help to balance the issue.

Use of Primary Materials. Authenticity of content in instructional materials also includes "the real McCoy," or the basic sources of the social disciplines. Primary material is the beginning point. Authors draw upon such primary materials as documents, speeches, diaries, and state papers to develop their own interpretations of what was said and done in history and what is and should be the nature of man and society. Nothing rings more true, however, than the raw data or the original and authentic source material.

It is true, of course, that any historian or social scientist can choose primary material at will and weave it into a predetermined analysis of historical, political, economic, or social events. Karl Marx used all kinds of primary materials, but his selections for the most part were determined by a preconceived end. The American historian, George Bancroft, selected original source material from the annals of the American past to arrive at his concept of the "manifest destiny" of the United States. Like any other evidence, primary resources can be misused and abused.

The principle of "balance" must be adhered to, then, in employing primary sources as in using other types of material. The central point, however, is that the interweaving of the primary with the necessary secondary sources not only imparts authenticity to content, but also conveys some of the flavor of resources available to those whose decisions and actions constitute the mainstream of history and other social disciplines.

The letters and speeches of Cicero and Caesar, balanced excerpts from the Treaty of Westphalia, the dramatic declaration of Patrick Henry and the diary of John Adams, the autobiography of Frederick Douglass, the text of the Emancipation Proclamation and Wilson's "Fourteen Points," and sociological data drawn from Gallup's polls are examples of the basic stuff of the social studies. Presidential addresses on the state of the union, candidates' pleas during political campaigns, and economic data from almanacs and statistical yearbooks, as well as cartoons, photographs and art work, even newspaper advertisements, should be woven into what others say about these matters.

Student Engagement in the Teaching-Learning Process

Other chapters in this Yearbook have stressed student participation in the process of education in many ways. If instructional materials do not provide for this engagement, however, the chances are that this important component of social studies instruction will receive only lip service.

All students must be able to read, meditate upon the significance of the material, have the facility to file the input in their "memory banks," associate various kinds of input with one another, and respond orally or in writing with some evidence of understanding the material assigned to them. No one would claim that it is out of date for a person to receive information by reading a book. The point is that significant data are available in other forms, too, and that the student can be engaged more effectively in the collection, processing, and application of data if he uses a variety of learning tools. Books and other reading materials will always be necessary, but they should be utilized as one component of a materials system that will include the range of learning materials indicated above.

Another basic point about the role of instructional materials in fostering student engagement in the teaching-learning process is that a high proportion of tools designed for inductive learning should be used. This point has been made earlier in this chapter, in the discussion of types of instructional materials that are available, but it deserves reiteration here. There will always be a place, in a materials system, for some books, films, and other types of materials that present information in an expository fashion, but materials which encourage the student to work out answers for himself should become much more prominent than has been the case. Reading materials that are reasonably open-ended and compel the student to do some searching on his own in libraries and at home can be utilized effectively. Films that promote classroom discussion and debate should be used. Materials that permit role playing, discovery, and group discussion are to be encouraged, as well as simulation procedures or games. Most of the new social studies projects have developed learning resources which emphasize processes of inquiry and induction, and these approaches are to be hailed. As observed earlier, and discussed more fully in Chapter 10, teachers must develop the facility to use such materials effectively. To put the matter another way, materials which are designed to encourage student participation still can be taught in the expository didactic style. No materials are "teacher proof." There must be a harmonious mixture of teaching skills and materials developed for student engagement before this idea of teaching and learning can penetrate the social studies classroom.

Social Realities in Social Studies Materials

At the risk of overemphasis, it still must be stressed that the subject matter of the social studies should portray as realistically as possible what happened in history and what is taking place in political, social, and economic life in the United States and in other nations. Authors of social studies materials of all types — books, films, etc. — are more likely to be guilty of sins of omission than of commission.

Primary materials can do much to lend realism and authenticity to social studies materials, as can student activities in the community at large. Again, most of the materials emanating from the new social studies projects are making considerable headway in being more honest with students, and it is hoped that this trend will continue. The extent to which students do not see the real life of their environment and society reflected in the materials they use for learning may well be the extent to which they will reject those materials as misleading, superficial, and useless.

Student and Teacher Involvement in Preparing Social Studies Materials

The vast majority of instructional materials for schools are prepared by people who have no direct association with the schools in which these materials are used. Authors of textbooks, filmstrips, and other learning materials often are from some specific school system, but their publications are used by teachers and students who do not know them and whom they do not know. Given the commercial publisher's need for reaching wide audiences, this phenomenon will not change. There are, however, many opportunities for teachers and students alike to play an important role in materials development.

Thousands of school systems provide for teacher preparation of some materials, if only classroom guides for many kinds of courses. A teacher's guide or manual is not generally a tool for the student, but it usually does provide for some selectivity of instructional resources by both teacher and student. More and more teachers are writing units for students and are developing multi-media packages which include tapes, slides, transparencies, and even videotapes and movies, through which students can encounter ideas and information in a variety of ways.

Although the idea of student preparation of materials may sound "far out" to many, it is not as academically outrageous as it may seem, and in numerous cases it has proven an effective approach. The textbook may well be a hostile artifact of schooling for many students. If it is shoved at the learner, especially one who is prepared to reject any preprocessed educational tools, it becomes a hated object, particularly if it is old, tattered, and dull. If, however, the student is requested to "write his own book," it may well be that he will be encouraged to take an active role in the teaching-learning process. Such a project can take the form of a three-ring notebook or simply a manila folder into which the student puts his own writings, answers to questions, observations about the environment around him, surveys of his home and community, and notes of social data derived from analyzing primary documents. Developing transparencies, slides, films, and taped interviews on the recorder are other ways in which learners can participate in materials development. Writing scenarios for role-playing situations, designing simulation games, directing videotape presentations, and supervising the organization of group discussions with appropriate written and audio materials are also activities that creative teachers have encouraged students to carry out.

For teacher and student alike, the fundamental point is involvement. Maximizing the possibilities of planning classroom situations which draw upon written, audio, and visual materials and of participating actively in executing those plans can only encourage both teacher and student to share in activities, to learn together, and to *want* to learn together. No school system should rely wholly upon materials which have been presented to it by remote authors, regardless of the brilliance and intellectual virtue of such resources. Schools should provide a genuine role for teacher and learner to inject their ideas, initiative, and intelligence into whatever materials are used for social studies education.

EXPANDED FUNCTIONS OF INSTRUCTIONAL MATERIALS

Instructional materials are commonly considered only as message-conveyors to students in the schools. Tools for learning can have other important implications, however, and their full potential should be explored by each school system. Among the broader functions of instructional materials are their role in teacher enlightenment, their relation to research in learning theory, their utilization to provide for different learning levels and styles, and their possibilities for education of parents of disadvantaged children, as well as middle-class parents.

Instructional Materials and Teacher Enlightenment

Social studies teachers usually are enlightened by studying new learning materials designed for classroom use. A fresh history text or a new edition of a standard work usually contains new facts and data as well as different interpretations of history and other social science disciplines. A piece of children's or adolescent literature dealing with a social studies theme, a juvenile biography, or a single-topic account that has been prepared by a competent author often includes colorful detail that helps to "bring the subject alive." Recently produced audio-tapes, records, films, filmstrips, slides, and other audio-visuals also bring new messages to teachers as well as to students.

The impact of instructional materials on teacher enlightenment should go deeper than this, however. In a number of the social studies curriculum projects, it has been observed that teachers using the innovative materials in the classroom often develop new methodological skills and overcome — in varying degrees, it is true — a reluctance to deal with subject matter that rarely penetrated into the classroom previously. In other words, materials can perform an inservice teacher education function which may well not come about in any other way.

The area of intergroup relations provides an example. Materials dealing with racial and cultural diversity in America that have been developed recently at the Lincoln Filene Center are concerned with a sensitive area of social studies education and also are based on the inductive approach so far as classroom teaching is concerned. Because the area is sensitive, many teachers have tended to feel that discussing racial, religious, and national-origin differences in the classroom may offend some students and may incur the wrath of school administrators and parents. We all remember how Mr. Dadier in *Blackboard Jungle* was severely criticized by the principal of North Trades Industrial School for having a discussion of bigotry in his classroom. What new approaches to instructional materials and teaching strategies can overcome this problem so that the teacher will feel comfortable and honest in bringing the critical topic of intergroup relations into the mainstream of social studies education?

If students discover some of the harmful consequences of different patterns of samenesses and differences, and if they participate in many ways in classroom learning activities, this sensitive problem can safely be brought into the classroom. In other words, a teacher cannot exhort students to be good little democratic citizens or lecture to them on the matter. But he can provide material from which the students can draw their own conclusions. The inductive process, therefore, is fundamental to education in intergroup relations, as it is in so many other areas of the teaching-learning process.

It has been the Lincoln Filene Center's experience that the reluctance of many teachers to handle the topic was lessened by use of the new materials, and that the teachers were able to teach inductively as well. Such experiences suggest that subject matter in many areas can be learned by teachers through using new materials in the classroom, and that they also can acquire new methodologies in this way. This is not to say that innovative materials can be transplanted into the classroom automatically. In most of the curriculum projects, it has been found that some form of inservice training for teachers was necessary if the new materials were to be used effectively. Once the teacher acquires a facility for using such programs, however, he can learn much of subject matter and of methodology through classroom teaching itself.

Relation of Learning Theory to Materials

Recent research has abundantly reconfirmed a theory about learning expressed 2,400 years ago by Plato, that the human being acquires values and attitudes of social significance very early in life. The socialization of the child is how he develops in a cognitive and affective manner by receiving messages from people near him, from media, and from his environment. Whether we refer to the political, economic, sexual, or whatever other category of socialization that has relevance to the social behavior of the individual, we may be assured that one's perception of man and society tends to develop while the person is very young.

For the most part, the individual's cognitive growth can increase with each passing year. The development of attitudes and values with respect to issues in the domain of the social studies takes place quite early and may become hard and fast by the time the person reaches his teens. In brief, affective orientations with respect to politics, intergroup relations, economic behavioral patterns, sex, social groupings, and roles of leadership or self-abnegation may become fully developed by the junior high years. What are the implications for instructional materials in social studies of these facts about the socialization of the child?

A significant shortcoming of most instructional materials at the elementary school level is that they do not reflect the research that is available about how young people learn. In the political realm, we know about the positive feelings elementary school children have toward the President and other governmental leaders; how they begin to learn about political parties and political participation; how they develop perceptions about authority and ways to influence those having authority; and how they connect the variables in the process of governing. In the social studies learning materials, however, little is done in writing or visuals to relate these messages that are derived from the home and community and from media to childhood learning in the school. The policeman remains the friendly man on the corner, with nothing presented to show where his power comes from or what the effects of his decision-making might be. Politics is almost universally avoided in instructional materials at the elementary school level, and elements of political science as such are never cast in the process approach. In brief, children develop cognitive and affective patterns in politics quite early, but the school provides little or no cognitive or affective framework for the child to employ in receiving or ordering these patterns.

The same can be said about the lack of relations between research in intergroup education and instructional materials. Although Dick and Jane now go slumming, research indicates that the inner-city child identifies far more with the message conveyed in written materials than with multicolored (and so, presumably, racially balanced) textbooks. The inner-city Negro child identifies readily with Cinderella, but not with a tan suburban Negro child. Research points to very early comprehension by the minority-group child that he or she lives in a culture dominated by white Christians. Only recently, however, have those who prepare learning materials begun to deal with this matter, and their response to date remains quite inadequate. Gaps are also apparent between socialization research in economics, sociology, psychology, and other areas normally covered by the social studies, and what instructional materials do or do not do with content in these fields.

The implication of these gaps should be clear. Instructional materials have a much broader role to play in the learning process than that of simply presenting facts and data about man and society, past and present. They are one of several vital input items in the process of education. If the messages in these materials were more appropriately and effectively correlated with what research tells us about the broad socialization of the child, they could be far more significant in helping students to proceed toward the objectives of the social studies curriculum. Such a correlative effort would also bring the realities of the social world of the child much closer to what educators demand of the child in school. In brief, what instructional materials do or do not do is critical in bridging the gap between learning outside the classroom and learning within. The whole area of socialization research offers many lessons and opportunities for closing this gap.

Utilization at Different Learning Levels

Which instructional materials are most appropriate for what "learning levels"? This is a question widely debated by social studies teachers, as well as by many others, in school systems throughout the United States.

Naturally, student reading capacities play an important role in deciding what available materials should be used, especially at the high school level where tracks or other dividing mechanisms often determine the kinds of books and other materials which find their way into the classrooms.

Frequently the social studies curriculum is based upon decisions that were made in the schools years ago. And often the high school curriculum is structured along lines that appear most desirable for students in college-bound tracks, with a special focus upon meeting the requirements for college entrance examinations. In line with this sequence of events, the college-bound students generally take world history, American history, and a choice of electives in the senior year. In the 1960's, non-Western history and area studies began to receive more emphasis. The chosen materials were, and still are, those which present content that is relevant to examinations for college-bound students. Young people in the general or non-college-bound tracks usually have reading materials which fit within this over-all structure, but which also have lower-level vocabulary and presentation of content on a watered-down basis. In brief, the college-bound student may have adequate material to meet his needs for the inevitable examinations, but the non-college-bound student has inferior materials — and generally knows it.

One should seriously question this over-all situation. The examination process for the college-bound students probably will continue to dominate the selection of materials for these kinds of students, although there is evidence that a curriculum emphasizing specific bodies of content is a less effective preparation for college than a program that focuses on information-processing skills. No one would suggest that the young people motivated toward higher education should be shortchanged in their preparation, although too few voices are raised to question the domination of the testing process in the organization and selection of content for high school social studies. A plea is made, however, for materials which better reflect relevance and reality for all students and which emphasize the affective domain as well as the cognitive.

For all high school students, instructional materials can stress not only inductive thinking but also the ideas of process that are implicit and explicit in the content of the social studies, and they should do so. Open-ended situations, case studies, primary material, and subject matter drawn from daily national and international social phenomena are as valid for the college-bound as for those not in this privileged position. An expanded function of instructional materials, then, is to convey reality and relevance, as well as the mass of facts that, presumably, are vital to those going on to higher education.

For non-college-bound students, too, a sense of history is important, but it will not be obtained by means of comic-strip monographs and Mickey Mouse filmstrips and films. The high school student in this category knows when he is presented with diluted subject matter, and he tends to resent such an approach. There is a critical need for the development of relevant social studies materials and programs for him — ones that have a positive impact upon his reading and thinking skills as well as on his grasp of concepts and ideas.

Unfortunately, too many of the innovative high school social studies programs are designed for the college-bound student. One reason for this is that the scholars from the universities who have been largely responsible for designing these programs are not in tune with the needs of the lower-track students. All school systems, however, should give as much attention to these students as to the upper-track young people, perhaps even more, because the college-bound students have so much going for them. An expanded role for social studies materials is not only to give more emphasis to the ideas of relevance and reality for all students, but also to help those in the general and lower tracks to view the social studies as an exciting, vibrant, and helpful area of learning.

Instructional Materials and Enlightenment of Parents

Instructional materials can be instructional for parents as well as for students. Too often students are told to study their books and other materials at school and to use encyclopedias, almanacs, newspapers, and library resources for their homework. For the highly motivated student, this may be a satisfactory process. Too few students, however, are requested to have parents examine their social studies materials carefully and to share with students the process of learning and study in the home. For the economically or socially disadvantaged, this lack of sharing has a particularly negative impact upon the desire to learn.

An example drawn from a social studies project in California may serve to shed another light upon this situation. The group at the University of California at Los Angeles (UCLA) which developed an intermediate-level unit on due process of law found that the students in a pilot program in the Watts District of Los Angeles were taking their monographs home to show to parents.[14] These exciting materials stimulated the parents to examine a number of issues arising out of the implementation of the Fifth Amendment to the Constitution within the framework of the courts. Parents of the Watts students could read and understand this process approach to the law and came to UCLA with requests for programs for adults. The connecting link between what their children were studying in the schools and their own needs for a better understanding of the law is one that might well be replicated in many kinds of social studies programs throughout the United States.

There are also reasons for encouraging students who may be considered "advantaged" to acquaint their parents with the social studies materials they are using. One is that the goals and scope of the social studies program can thus be communicated to the lay public in a specific, positive manner. Another is that these parents, like most of today's adults, gained relatively little background in their own schooling about many topics and issues that are receiving emphasis in a modern social studies program — non-Western cultures, international relations, and intergroup relations are examples. Similarly, many parents have not had the opportunity to become acquainted with the modes of inquiry now prevalent in social science investigation. These parents, too, can profit from sharing in their children's social studies experiences.

In sum, an expanded role for social studies instructional materials can well be the stimulation of parent interest in their children's education and in enlarging upon their own education as well.

INSTRUCTIONAL MATERIALS: AVAILABILITY, SELECTION, AND ASSESSMENT

On the very day that these words were being written, the author received a call from an elementary school principal who announced that he had the sum of $150.00 to commit for the purchase of instructional materials for his fourth grade. He must submit the order before the end of the school day, and what would the Lincoln Filene Center suggest? He said he wanted "something new," but not out of line with his fourth-grade teacher's capacity to handle materials of an innovative nature. A recommendation was made from this office, but whether the principal accepted the suggestion, the intriguing issues remain: What is available? Who decides what should be adopted? How does one really know what instructional materials in the social studies are most likely to help a particular group of students in a given situation to advance toward the educational goals established by the school system? Availability, selection, research, and evaluation are critical problems in any treatment of social studies materials.

The Problem of Availability

It would seem at first glance that no social studies educator should be at a loss to know what materials are available on the market. Sales patterns of publishing houses include calls at schools by salesmen, distribution of catalogs, advertisements in trade and professional publications, and exhibitions at educational conventions. The market, however, is enormous, and the choices of materials that are available for use from the first through the twelfth grades are almost overwhelming. Talks with a wide variety of teachers indicate that hard work is required to locate available materials and examine them carefully before making decisions. Thus, one aspect of the availability problem is simply knowing what materials there are from which to select.

Another aspect of availability is being able to obtain the material at the time it is needed and with a reasonable expenditure of time and effort. Most teachers find that the textbooks which have been selected for their courses are readily available, but that obtaining many other materials may present real problems. For example, getting the right film at the right time often is difficult. True, some school systems which have solid financial resources and which have developed instructional materials centers, with efficient procedures for distribution, can respond to teacher requests without delay. Unfortunately, however, few schools have learning materials collections and procedures that are adequate to meet teachers' day-to-day needs. Problems of ordering non-textbook materials often persuade the teacher that the effort is not worth the trouble, and undoubtedly many fine instructional resources, which are available on a limited basis, get into only a few classrooms.

Both aspects of the availability problem could be considerably ameliorated if school systems would cooperate to support regional educational service centers which, among other functions, could serve as clearinghouses for information about instructional materials and to some extent for exchange of materials themselves. Professional staff members of such a center could devote the time required for continuous collection of information about materials, and samples of the materials, as they come on the market. This task would be a basic part of the staff member's job, in contrast to the after-hours effort that individual teachers must make if they are to inform themselves about recently published books, films, and so on. Such a regional center would not obviate the need for instructional materials centers operated by the larger school systems in its area, but the regional organization could service many of the needs of smaller school districts and could serve a back-up function for larger ones. Some of the cooperative centers that have been operated as Title III projects provide patterns for the development of such clearinghouse organizations. It is hoped that in the immediate future, school systems will invest the funds to create and maintain such centers.

The question of the availability of materials produced by the various social studies curriculum projects deserves special comment. Under existing conditions, it seems unlikely that these materials will be used on an extensive basis unless they are published commercially by major houses. All directors of social studies projects were besieged in the mid-1960's with requests for "all their materials." Some responded as best they could, and others not at all. Publishing houses began to put the materials from some projects on the market in 1966 and 1967, and more are appearing each year. Many projects produced instructional resources which, because of federal financing, went directly into the public domain. It remains to be seen what problems will arise in competition between major houses publishing revised, copyrighted versions of those materials and the minor companies which reproduce the public property for purposes of immediate commercial gain.

Selecting Appropriate Materials

The major generalization that can be made about present practices in selecting instructional materials for social studies programs is that they are varied, often haphazard, and too frequently lacking in a professional approach. This conclusion, it must be admitted, is based on pragmatic observation rather than systematically collected data. Nevertheless, there is some evidence to support it.

A major emphasis running through this chapter has been the need to utilize a range of instructional materials and to select materials that will contribute to the achievement of program goals and will enhance the effectiveness of the teaching-learning process. Some basic criteria for materials selection have been suggested. The point has been made that the standard textbook is only one of many learning tools that should be made available, if students are to be engaged actively in realistic study of their social world. Yet the textbook is the only type of instructional material for which systematic patterns of selection have been developed, and these patterns vary enormously from one situation to another.

About a dozen states have definite procedures for choosing approximately five basal books for specific courses, such as United States history for the eighth grade. The cycle of choice swings around every three or five years. A school system has the option of selecting one of the five proffered texts for the three- or five-year period. Many states leave the choice entirely up to the local systems; and many systems, in turn, delegate to individual schools and even to individual teachers the selection of the textbooks they want for their social studies programs. The picture becomes even more complicated when one considers the various selection and review committees that may be established at any level — state, system, school, or classroom. Too often political considerations enter into choices of textbook materials, especially when the teachers actually using the materials are not consulted on final choices. In many situations, however, there is at least a broad assumption that an examination and evaluation of available textbooks by social studies teachers should precede the purchase of the one that is selected.

The lack of generally accepted patterns for social studies personnel to participate in the evaluation and selection of materials other than the hard-bound textbook both reflects and encourages the restrictive emphasis on this traditional learning tool. True, some forward-looking school systems encourage social studies curriculum committees to review pamphlets, paperbacks, juvenile biographies, and other special-topic reading materials, as well as a range of audiovisuals, and to make recommendations for purchase. The more frequent practice appears to be that of leaving the expenditure of funds available for non-textbook reading materials to the school librarian and the selection of audio-visuals to the audiovisual director, both of whom must handle materials for all curriculum areas and may lack expertise with regard to social studies. Probably most librarians and audio-visual directors welcome and even solicit suggestions from the social studies staff about items that should be ordered. However, unless a systematic plan for engaging social studies personnel in the materials selection process is established, the busy teacher is not likely to respond.

More viable practices are needed than are now generally applied in selecting social studies instructional materials, if long-range program improvement is to be achieved. No ready-made solutions to the problem are at hand, but some possible directions for exploration can be suggested.

If regional educational service centers with adequate professional staffs can be developed, as suggested in Chapter 10, one of their functions could be the systematic evaluation of all types of instructional materials as they come on the market. Such evaluations could be based on criteria such as those suggested earlier in this chapter. The evaluation of each item could indicate the program goal(s) to which the material would be likely to contribute and the characteristics of learners who might use it effectively. Thus, local school staffs would have objective guidance in their selections.

There is also the possibility of developing machinery for objective analysis of instructional materials at the national level. Although one would not want any national committee to determine priorities and to exert undue influence on decisions, it would be advisable to establish some authentic framework which would assist the decision makers at whatever level to select the materials most appropriate for their own programs. A group consisting of social studies curriculum specialists, classroom teachers of social studies, and administrators at all levels, and perhaps others, could appraise most social studies instructional materials available to the nation's schools. They could make their appraisals on the basis of objective evaluation instruments and, by means of codes, make recommendations concerning the quality, utility, and potential applications of different kinds of materials at all grade levels.

In summary, the selection and adoption process concerning social studies instructional resources in the United States is far too haphazard and unprofessional, and too often the abundance of these materials makes it likely that ultimate decisions about the nature of learning tools to be employed will be made by the publishers themselves. It is time that social studies educators should apply their experience and expertise to assisting local schools in the selection of the social studies materials that are most appropriate for the needs of their students and for the goals of their systems.

The Need for Assessment as a Basis for Materials Development

Clearly there is a need for more careful evaluation and assessment of the scope and content of existing social studies instructional materials if more effective tools for learning are to be developed in the future. Research in many areas of the social studies is available, as are a variety of evaluation studies, designs, and instruments.

Research with respect to student cognitive and affective development in subject matter associated with the social studies, as we have noted above, should be more intimately related to devising instructional materials. Research is needed also to tell us how the social environment of the child connects with his social studies education in the schools, and what impact various kinds of packaging of a social discipline (concepts, structures, etc.) have upon the organization of materials the student must use to learn. It would seem that instructional materials, one of the vital components of education, are too much isolated from research concerning teaching-learning processes and from curriculum structure and design. This, then, is a plea for more connecting links between research in social studies education and the future development of instructional resources.

In the area of evaluation, much attention in recent years has focused upon content analysis and the development of survey instruments for this purpose. Most content analysis has been impressionistic, with Seasholes' pioneering studies serving as the only depth approach to examination of messages conveyed by textbooks, especially in the affective domain. Much work should be done here, especially in examining explicit and implicit values and attitudes which are conveyed in many ways in all kinds of instructional materials. This must be done in such a way as to relate these materials to teaching patterns, socio-economic backgrounds of learners, and other variables which impinge upon the messages students receive. Perhaps the Research Committee of the National Council for the Social Studies can address itself to this need and can provide some guidelines. Certainly some national organization or group should attack the problem so that progress can be made in the vital task of giving the students the best materials possible for their needs.

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[8] Tanner, Daniel. "Television and Learning." *Teachers College Record* 65: 246; December 1963.

[9] "Television in Social Studies Education," p. 9.

[10] See: Edwards, Judith B. "Computers Travel in Oregon." *Educational Technology,* April 15, 1968; and

Fielding, Gordon J. "Computer-Assisted Instruction in Geography." *The Journal of Geography,* November, 1968.

Journals such as *Educational Technology* and *Educators Guide to Media and Methods* should be examined closely for reports on the relationship between the new instructional technology and the social studies.

[11] See the April, 1968, issue of *Review of Educational Research* which focuses on the topic, "Instructional Materials: Educational Media and Technology."

See also: Howe, Harold. *Picking Up the Options.* Washington, D. C.: Department of Elementary School Principals, National Education Association, 1968. Especially Chapter IX, "Education and the Changing Technology;"

Oettinger, Anthony, and Marks, Sema. "Educational Technology: New Myths and Old Realities." *Harvard Educational Review* 38; Fall 1968; and

Rossi, Peter H., and Biddle, Bruce J. *The New Media and Education: Their Impact on Society.* Garden City, N. Y.: Anchor Books, 1966.

[12] See, for examples:

Resnick, Lauren B. "Programed Instruction and the Teaching of Social Studies Skills." *Skill Development in Social Studies.* Thirty-Third Yearbook. Washington, D. C.: National Council for the Social Studies, a department of the National Education Association, 1963. pp. 252-273; and

Newmann, Fred M. "Evaluation of Programed Instruction in Social Studies." *Social Education* 29: 291-5; May 1965.

[13] See note 3.

[14] Quigley, Charles N. "Due Process of Law." *Your Rights and Responsibilities As An American Citizen: A Civics Casebook.* Boston: Ginn and Co., 1967. pp. 57-112, 120-126. A Teaching Guide is also available.

CHAPTER SEVEN

Roland F. Payette
C. Benjamin Cox

New Dimensions in Evaluation of Social Studies Programs

Many evaluation specialists as well as social studies educators express a general dissatisfaction with both informal and formal approaches to the evaluation of social studies programs. Informal evaluation tends to be viewed with suspicion, especially by evaluation specialists, because of its excessive emphasis on intuitive goals, casual methods, and subjective judgments. Formal evaluation tends to be viewed with doubt, particularly by educational practitioners, because of its reliance on sampling techniques, fragmented treatments and outcomes, and statistically-based comparisons. In either case, both groups express some unease that evaluation reports linking sound educational data to important curricular decisions are rarely to be found.

This chapter is concerned with the identification and description of basic approaches, categories, data, and criteria to be employed in the evaluation of various types of social studies programs. It will not detail a step by step account of how to evaluate a social studies program as a means to making particular curriculum decisions. Curriculum decisions could, however, be based on a consideration of the topics and treatments dealt with in this chapter.

One facet of the dissatisfaction with current forms of curriculum evaluation is that the social studies educator places little reliance on formal procedures because the questions posed in these procedures are seldom the questions *he* is asking. For example, the formal evaluator may ask, "What are the students in my sample learning and how can I measure these learnings validly?" The teacher may also ask, "What are my students learning?" But then, in addition, he wants to know, "How can this information help me to improve my program?" Clearly, the questions stem from different concerns and lead to different considerations.

Evaluation specialists and teachers differ so importantly in their concerns because of a difference in their "frame of reference." Viewed educationally, the concept of "frame of reference" may be used to differentiate between factors that influence the perception of the evaluation specialist and factors that influence the perception of the teacher.

Goldstein claims that the observer (the outside evaluator) takes as his point of departure not the living experiences of the members of a society, but rather, the questions that the investigator thinks are worth answering.[1] In contrast, Natanson has identified the perspective of the actor (teacher) as placing major emphasis on the meaning social acts have for the actors who perform them and who live in a reality built out of their subjective interpretation.[2]

The present account of evaluation is certainly not the first to have emphasized diverse perspectives and purposes between evaluation specialists and teachers. In describing "the changing countenance of educational evaluation," Stake draws a distinction between the evaluation specialist and the educational practitioner. He notes that:

> *The specialist sees himself as a "describer," one who describes aptitudes and environments and accomplishments. The teacher and school administrator, on the other hand, expect an evaluator to grade something or someone as to merit. Moreover, they expect that he will judge things against external standards, on criteria perhaps little related to the local school's resources and goals.*[3]

Thus far, it has been indicated that teachers and evaluators ask different questions about student learning and that these divergencies may be related to different aspects of the educational context that stand out for those who play different educational roles, i.e., the teacher as participant in the educational process and the evaluator as observer. The purpose of these distinctions has been to suggest the legitimacy of the perspective of the teacher within the process of evaluation.

The Thirty-Fifth Yearbook of the National Council for the Social Studies provides an excellent example of evaluation in the social studies as perceived primarily from the perspective of the evaluator.[4] We proceed now to an identification of the dimensions of the educational ground, as seen through the eyes of a teacher, that might provide a new perspective for evaluation in the social studies.

TOWARD NEW DIMENSIONS IN SOCIAL STUDIES EVALUATION

In recent years several influential educators have claimed that evaluation programs are typically incomplete. These authorities have suggested means for expanding the scope of evaluation. Evaluation has tended to focus largely on a narrow range of student outcomes. For example, in 1963 Cronbach urged that evaluation for course improvement should include general outcomes ranging far beyond the content of the curriculum itself: attitudes, career choices, intellectual powers, and capacity for further learning in the field.[5] Krathwohl and others insist that *What is missing is a systematic effort to collect evidence of growth in affective objectives which is in any way parallel to the very great and systematic efforts to evaluate cognitive achievement. . . .*[6] However, it was not until both Stake and Stufflebeam described more complete conceptions of evaluation in 1967 that plans for evaluation began formally to include purposes, programs, and processes as well as products. In his discussion of "the countenance of evaluation" Stake drew distinctions among antecedent, transaction, and outcome data.[7] Similarly, Stufflebeam referred to context, input, process, and product stages in his evaluation model.[8] A fundamental reason for including these additional data in the evaluation process is provided by Hastings. Outcome data, e.g., test data that tell us that students acquired certain concepts and missed others, help us comparatively little with the question of program revision. *What we need are data which throw some light on the "why" of the test results.* Data emerging out of descriptions of antecedent conditions and transactions provide the basis for answers to this "why."[9] It was during the application of these conceptions to the social studies that the possibility of a genuinely useful participant (teacher) perspective in evaluation was suggested.

Stake's model of evaluation, which is used as the conceptual base of this present effort, establishes three categories of data that are useful as observation points in the evaluative process.[10] These categories are viewed as observation points in the evaluation process because they provide evaluation participants with points of entry into processes. Once entry has been made, the participant is enabled to look in any of several directions to observe associated conditions which are present in the evaluation situation. Figure 1 depicts the evaluative model's three types of data.

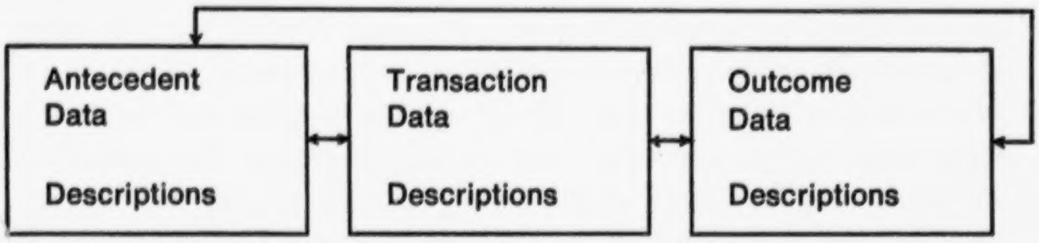

FIGURE 1: Categories of Description in Social Studies Evaluation

Antecedent conditions refer to *all the responses that are carried to the educational situation by the student and teacher participants and which may have an effect on the outcomes.* For example, a faculty designing a social studies program decides that a significant objective for their program should be the increase of knowledge about the functioning of major institutions in the society, e.g., economic, political, family, and religious. This objective, when recognized by a teacher and carried to his classroom, then functions as an antecedent condition that will likely have some effect on the outcomes of the program.

In an effort to achieve the goal of knowing about one aspect of the society (the antecedent condition cited above), the teacher plans a discussion with his students to discover what they already know about the function of the economic institution in the society. The execution of this plan, the actual occurrence of the discussion, is called a *transaction* in this evaluation scheme. In general, transactions refer to *planned interactions among persons in the educational setting for the purpose of achieving educational outcomes.*

As a result of this discussion, the teacher learns that his students know that the job of the economic institution is to produce goods and services.

However, he also learns that they do not know how and by whom basic decisions in the economic realm are made. One outcome of this discussion is the new knowledge that the teacher now has of his students' limited perception of the functioning of the economic instiution. Another outcome is the students' awareness of their limited knowledge. In this approach to evaluation, an *outcome* is identified as *any modification in the response of participants that can be linked empirically or logically to the educational process.*

Merely defining antecedent conditions, transactions, and outcomes, however, does not show how the evaluation schema shown in Figure 1 may be viewed as a system for making decisions. That is, the definitions alone do not indicate the relationship of the evaluation system to its educational environment. This relationship can be illustrated by applying systems analysis concepts to the evaluation scheme. The antecedent conditions may be viewed as the *inputs* from the educational environment into the evaluation system. Objectives, a special kind of antecedent condition, correspond to *demands,* an important type of input into the system. The outcomes comprise the *outputs* of the system, and the transactions provide the means or dynamics by which persons in the system attempt to convert objectives into outcomes. Finally, the concept of *feedback* serves to unify the entire system. When the evaluation system is viewed as a feedback system, it becomes clear that it is a self-regulating system. That is, it is a system that produces outputs in response to demands and includes the results of its prior outputs in the determination of its subsequent inputs. The feedback loop in Figure 1 is represented by the line leading from Outcome Data back to Antecedent Data, the point at which the evaluation process begins again.[11]

This discussion of similarities between the evaluation scheme presented in this chapter and a systems analysis approach is provided to show that the use of antecedent, transaction, and outcome data may facilitate decision-making, a central task in the educational process.

ANTECEDENT DATA

In our development of a teacher or participant perspective in social studies evaluation, antecedent data, as explained above, will refer to conditions existing prior to instruction which may relate to outcomes.[12] According to this conception, antecedent data refer to such seemingly disparate conditions as factors existing in the community which may preclude the treatment of certain social topics in the classroom, personality and educational characteristics of teachers that may affect their selection and use of available materials and methods, student attitudes toward authority figures which may profoundly influence the quality and quantity of student dialogue in the classroom, and the state of knowledge existing in a particular field that establishes the kinds of ideas that can be dealt with and the manner in which they are to be treated.

The above examples are consistent with the set of four clusters of social forces identified by Schwab in his analysis of grounds of curriculum decisions.[13] These are: teachers; learners; subject matter; and social milieu groups. These four clusters will be used in this analysis to identify various types of antecedent conditions that teachers may attend to in their evaluation approaches.

Teachers

The teacher's perception of what is relevant to classroom learning will provide the criterion for including certain conditions and excluding others. The teacher is generally sensitive to the function of educational objectives in the educational process. He has been taught to plan lessons, choose teaching and learning materials, estimate student responses, and design evaluation measures in terms of objectives. But each teacher's planning, choosing, estimating, and designing are affected by his knowledge about himself as a teacher. That is, he takes into account the cluster of teacher characteristics that he sees in himself.

For example, a teacher using the curriculum materials developed by the University of Illinois Social Science Curriculum Study Project is provided with an objective stating that students are to learn the concepts of sample, function, and socialization in a unit, *The Family in Society*.[14] This objective is an antecedent condition which the teacher deals with in two ways. He interprets it from his perspective of what is relevant to the classroom situation and with reference to his knowledge about himself.

The teacher's preoccupation with the classroom situation leads him to raise questions about the appropriateness of this objective for his students. That is, he may ask if the expected outcomes of this objective will be useful to his students; or, he asks if it is feasible in view of the resources at hand; or, he asks if the pursuit of this objective will produce customarily observable and testable behaviors in his students.

The teacher's response to these questions enables him to identify additional conditions that may affect the achievement of this objective. In examining the utility of the objective, the teacher may apply criteria that he has developed from his knowledge of his students. He may say that the objective is fully useful to one group of college-bound students, but only useful in part to another group of non-college-bound students. The newly identified antecedent condition is the teacher's expectation of the utility of the objective in the future life of his students.

In his consideration of feasibility, the teacher compares the conditions he thinks will be necessary to achieve the objective with those conditions that he believes obtain in his situation. He may decide that the materials available to him are not appropriate to learning the concepts of sample, function, and socialization. He may feel that the concepts are too complex for some of his students to comprehend. Or he may believe that the methodology or data entailed in the project materials differ too greatly from the methods and data typically used in his school. The antecedent conditions suggested by this comparison include instructional materials available to the teacher, the teacher's expectation of students' capability, and the teacher's acceptance of school norms.

As the teacher appraises the objective he also attempts to envision the kind of student behavior that will indicate the achievement of the objective. He may conclude that the envisioned behaviors do not fit the customarily observable and testable behaviors. The antecedent condition to be taken into account is the customary means by which student performance is judged.

As the teacher further considers the objective that students should learn the concepts of sample, function, and socialization, he filters his considerations through his own perceptions of himself as teacher. These perceptions include an appraisal of his scholarship, his concept of the role of the teacher in the society, and his evaluation of his pedagogical skills.

For example, in reviewing the meanings in the objective the teacher may conclude that he really does not understand the concept of function. At that point his scholarship is lacking. The antecedent condition identified is the state of his scholarship vis a vis a particular objective. He may begin to consider either ways of compensating for this lack or ways to avoid treating the concept in forthcoming lessons. In this instance he may choose to amend the antecedent condition by study or by seeking help from a more knowledgeable colleague.

The teacher has also as a perceptive filter his philosophy of teaching, his perception of the role of teacher. He may see himself, for example, as a colleague in the learning process and, hence, welcome the opportunity to explore and learn with his students this new concept. Or he may interpret his role more authoritatively, believing the teacher's function is chiefly that of purveying correct information and, thus, see himself as unable to treat this concept in his classroom at his present level of understanding. In either case the teacher's perception of his own role is an important antecedent condition to be taken into account in the evaluative process.

Furthermore, the teacher's evaluation of his pedagogical skills may be considered an important antecedent condition. He may think of himself as incapable of following the suggested strategy in the teachers manual which suggests such new approaches as inductive teaching and discovery learning. On the other hand, he may consider such strategies to be effective and enjoy using them. Whichever view he holds, it is a relevant condition to note in the antecedent situation.

Learners

The perspective of the teacher in the evaluation process also serves to bring into focus antecedent conditions clustering about the learner. The teacher is predisposed to think of his students in terms of their progress toward specified goals, such as the comprehension of a particular theory or the analysis of a given concept. He is sensitive to the effects on his students' achievement of such factors as prior learning, intellectual ability, and attitudes toward school work. For example, in anticipating the work with the concept socialization, the teacher may talk to his students and their previous teachers to determine what prior knowledge the students have about the concept. In this case the antecedent condition is the students' prior knowledge about the topic to be studied.

In his evaluation of antecedent conditions, the teacher also considers the students' ability to learn a subject. He does this by determining the ability grouping of the class, or by examining the aptitude scores of his students, or by raising questions with his students to see at what level of abstraction they treat topics. The antecedent condition is the students' ability to deal with the knowledge in a field.

Student attitudes also affect learning. Thus, the teacher attempts to find out how his students feel about his subject area or about a particular topic. He may infer from the introductory discussions on socialization, for example, the affective tone of his class relative to that topic. He may infer attitudes from essays on socialization practices where students are asked to take a position and give reasons for it. Or he could ascertain the relative position of his students on an attitude scale designed to determine the acceptance or rejection of a socializing institution. The antecedent condition is the students' acceptance or rejection of a topic to be studied.

Subject Matter

A third set of factors that the teacher filters through his classroom perspective includes the unique aspects and the values of the particular subject matter. Teachers tend to assume that what interests them and what has meaning for them will also interest and have meaning for students. Therefore, teachers tend importantly to base their selection of content on these criteria. Those aspects of a field that are meaningful and interesting to teachers are important antecedent conditions as they affect the selection of materials to be taught.

To the extent that a teacher is knowledgeable about unique features in a field, he will likely place a high priority on these characteristics in his teaching. The antecedent condition is the teacher's predisposition to emphasize these unique factors in dealing with the field. For example, Sykes, in describing the unique features of his field, states that a functional orientation in sociology is the kind of *conception that unites the diverse inquiries of sociologists and provides a common framework into which we can fit the many theories and empirical studies of social behavior. . . . The functional orientation tells us, in effect, the major topics to be covered in the study of society, why these topics are important rather than others, and how these topics are interrelated.*[15]

The values of a subject field are those aspects believed important by the authorities in the field. For example, *The concept of social function has come in recent years to play an increasingly important role in the performance of . . . sociological tasks.*[16] That is, the concept of function is valued as a central item of knowledge in sociology. Furthermore, the methodology of sociology is viewed as having primary value in the field.[17] When the teacher accepts these values of a field, he will include them in his statements of objectives and will attempt to teach them to his students. The antecedent condition is the teacher's view of what is of most worth in the field.

Social Milieu

The social milieu cluster is the source of innumerable antecedent conditions in the evaluation situation. The social milieu is comprised of many demands made on the school by various social groups. These demands include needs that have a broad social significance as well as the more parochial needs experienced by special interest groups. The demands are impressed on the school in a number of ways. Legislatures, for example, pass laws requiring that particular topics, e.g., consumer economics and the Constitution, be dealt with in the social studies curriculum. Less formal groups communicate their demands on the school through direct appeals to school boards, administrators, and teachers. Demands may appear in newspapers, magazine articles, books, or other media, or may be communicated in face-to-face interactions.

An illustration of how a social milieu group imposes a demand on the school is seen in the successful efforts of the American Legion and other interest groups to influence state legislatures to pass laws requiring the study of rules for displaying and maintaining the U. S. flag. Teacher organizations also make demands on the schools. For example, the American Federation of Teachers, by consistently attempting to place limits on the time that teachers can be required to spend in school, has produced powerful antecedent conditions in many settings. Thus, in assessing the antecedent conditions emerging from the social milieu, the evaluator must inquire into demands that are made from within the school as well as those from outside groups.

From a teacher's perspective, we have looked at antecedent conditions clustering in four different conceptual locations, the teachers, the students, the subject matter, and the society. The attempt was to be illustrative rather than definitive. However, the teacher as evaluator was offered specific frames of reference out of which he could discover important antecedent conditions in any educational setting. While the identified antecedent conditions would change from situation to situation, the clusters are thought to be consistent and stable.

TRANSACTION DATA

Transactions as referred to earlier, are planned interactions among persons in the educational setting for the purpose of achieving educational outcomes. It is recognized that certain interactions that occur largely among friends or "insiders" in the school are also potentially important educational transactions. Such happenings as coffee-lounge conversations and after-class discussions can affect educational outcomes. But for the purpose of this analysis these casual transactions will not be examined in detail.

Planned transactions can be studied by examining each of a variety of factors that tend to characterize the nature of the transaction. In this analysis, these factors are grouped into six categories: (1) the purposes for which the transactions are intended; (2) the tasks entailed in the operation; (3) the logical characteristics of the transaction; (4) the roles participants play in the transactions; (5) the general styles of behavior that they display; and (6) the activities engaged in by the pardisticipants. It is not suggested that these six categories are necessarily discrete, nor is there any intention to be definitive in their development. Rather the attempt is to examine the nature of educational transactions by identifying some of their characteristics and offering examples of their occurrence.

Purposes

Transactions may be examined with reference to their purposes and the operations assumed most useful in achieving those purposes. For example, one purpose underlying the unit, *The Family in Society,* is to have students raise certain productive questions about the family, such as how the family is to be defined. Toward this purpose the teacher and students collect data concerning their own family membership. The collecting of these data raises puzzling questions about whom to include in one's own family. The purpose for the transaction serves as a criterion for delimiting the operation and for judging its relevance. Thus, in large measure, the purpose for the transaction conditions the character of the transaction.

Tasks

Identification of the tasks entailed in transactions can serve to clarify aspects of transactions. For example, a successful transaction may require the completion of such tasks as information seeking and giving, direction seeking and giving, and opinion seeking and giving. Both large and small parts of transactions can be analyzed and described in terms of these six tasks. They may also be useful in analyzing entire transactions in order to check on the relevance of the transaction to the objectives of the situation.

In the unit on the family, for example, the teacher may seek the average family size in the classroom by asking each student how many persons are in his family. The task performed is that of seeking information. In response, the students report the numbers of persons in their families. The task performed is that of giving information. Had the teacher requested prior estimates of the average class size, that operation could have been labeled opinion seeking. The students' actual estimates would have been opinion giving. A question asking how to calculate the average family size in the United States would be classified as direction seeking. A response to this question, which could include a series of steps involving the division of total population by number of family units in order to produce an average family size, would be termed direction giving.

The task orientation of a transaction could be calculated by comparing the frequencies of certain tasks with the total number of behaviors observed in the transaction. It is possible that the sequence or patterns of occurrence of tasks would be a more important object of evaluation than simply the frequencies of task occurrences.

Logical Operations

Educational transactions may also be analyzed on the basis of their major logical operations. Logical operations are *the forms which verbal behavior takes as the teacher shapes the subject matter in the course of instruction.*[18] That is, episodes of verbal behavior in a transaction can be categorized as utilizing such logical operations as defining, classifying, explaining, or evaluating. These are, of course, other forms of verbal logical behavior, but for the purpose of illustration these four major operations will suffice.

Defining. One operation that necessarily consumes a significant portion of transaction time in classrooms is that of defining. Definitions are used in classroom transactions to express a concept in verbal form, to set the frame of reference of a discussion, to develop or clarify a concept, or to check a student's understanding of a concept or how a word is being used.[19]

There are several legitimate forms of definition, such as indicating examples, giving a synonym, identifying an object referred to by a proper name, naming the genus of a term and pointing out differentia, and stating a relationship.[20] The following example illustrates definition-making by use of a synonymous expression. The teacher asks, "What do we mean by the term juvenile delinquency?" A student answers, "It means the breaking of laws by young persons under the age of 18 or so." The phrase used by the student is roughly equivalent to the term used by the teacher.

The conceptual involvement of a transaction could be calculated by comparing the amount of time involved in establishing the meanings of important terms used in the verbal exchanges with the amount of time devoted to other activities. The quality of definitional operations could be assessed by judging the logical completeness of the forms used, by noting the teacher's dependence on particular forms of definition, and by comparing the forms used with the ideal forms for the cases.

Classifying. Classroom transactions may be concerned with problems of classification of items that are under discussion. Classification as a logical operation is an attempt to identify an object or event as a certain kind of thing. Once the object is seen as a member of a class, the general attributes of that class can be assumed to apply to the object itself. Ordinarily classification operations in classrooms differ from those used in research. In classrooms the operation usually involves placing an object in a class already developed. For example, the teacher may ask, "Would you call Truman a radical, a liberal, or a conservative?" He refers to classes of politicians that are already described, however ambiguously. The student's response could be, "I think he was a liberal." His answer, an attempt at classification, helps to identify the attributes of the object, Truman. The appropriateness of the classification would require a further examination of the facts and criteria which prompted the classification.

Seldom are students required to go through the complete process of classification, though some newer social studies materials pose problems where lists of objects are to be placed in discrete categories to be invented by the pupils themselves. Researchers often employ this more complete process in their work with previously unclassified phenomena.

Explaining. The process of explanation is heavily involved in social studies classroom transactions. Indeed, it is possible to consider explanation as the key function of educational transactions in social studies, with other logical operations, activities, and behaviors contributing to it. In this present context, however, explanation is a particular set of logical operations that may be conducted and observed within the transaction matrix. As with most other logical operations, explanation has several forms. An event or phenomenon in social studies may be explained by its consequences, by its purpose, by its position in a sequence, or by its subsumability under an empirical generalization or law. There are also other forms of explanation that may have occasional application in social studies.

One of the most important forms of explanation in social studies is the empirical subsumptive model. An example of this form of explanation is seen in the following transactional episode. In an examination of revolutions the teacher asks, "How does the new group of political leaders capture the following of the people?" In the students' response there are references to "widespread discontent" among the people, the "loss of confidence" in the existing government, and the expectation that the government cannot provide for "continuing progress." Furthermore, the students suggest that the people see the new group as having "better character" and being "more able" to provide vigorous leadership. Their responses are then formulated into one or more generalizations that relate these concepts in the form of an empirical explanation.

Historical material often makes use of sequent or generic explanation. For example, a question calling for the explanation of the formation of the United Nations could logically be satisfied by the students' listing of events leading up to the signing of the treaties that officially established the organization.

Other explanation forms require the discussants to explain phenomena in terms of the intentions of the persons involved or the reasons behind their actions that may have produced the phenomena or events.

The point is that the logical operation of explanation is significantly involved in educational transactions. The examination of transactions from this vantage point permits judgments about the appropriateness of the forms of explanation used in particular cases, as well as judgments about the amount of time devoted to this operation within transactions.

Evaluating. Making judgments, i.e., evaluating, is a pervasive logical operation in educational transactions. Objects that are defined, classified, and explained may often be considered as having dealt with incompletely until they are evaluated or rated. The evaluation of a statement, event, action, or some other object most often implies the expression of a rating statement, the identification of the criterion on which the rating is made, and the marshaling of facts that show the connection between the object and the criterion. The criteria used in evaluating or judging may be rules, norms, personal feelings, or outcomes. Thus, in a classroom situation, the question is raised whether the sale of marijuana should be permitted. In a variety of ways students offer their opinions that it either should or should not. The teacher presses the issue by requiring the students to state the reasons for their judgments. One student says, "It's bad for your health." Another responds affirmatively that if a person likes it, he should be allowed to smoke it. Another says, "It's against the law." The three responses represent the application of three different criteria, consequences, personal feelings, and existing rules.

The examination of educational transactions from this point of view permits judgment both as to whether sufficient attention is given to value questions and as to the adequacy of support for the judgments that are made.

Roles

Educational transactions serve as contexts within which educational roles are played. Stated differently, teachers engage in the patterns of behaviors they think are expected of them as they interact with others for the purpose of producing educational outcomes. Students, too, tend to exhibit certain behaviors that are accepted as appropriate for learners. The conception of roles may be useful in eliciting aspects of educational transactions not hitherto perceived.

Where or in what situations are educational roles usually performed? Responses to this question, i.e., in schools, in classrooms, in counseling offices, or athletic fields, in homes, etc., suggest that educational transactions may be observed wherever educational roles are performed. Further, roles as divisions of labor in groups indicate who does what in educational transactions. That is, it may be correctly predicted that in educational transactions teachers will provide information, that they will apply social sanctions, and that students will seek direction and express opinions. Finally, it may be inferred that since educational roles have to be learned, some educational transactions will employ socialization processes.

Styles of Behavior

To date, systematic treatments of the concept of "style" in education, either teaching style or learning style, have not been reported. In this section the term will be used in a non-technical way to refer to the characteristic ways in which teachers or students participate in educational transactions. For example, a teacher whose approach is consistently concerned with questions of information, orientation, and opinion may be viewed as "task-oriented," following categories described by Robert Bales.[21] A second teacher may be primarily interested in such dimensions as tension creation *versus* tension reduction, group solidarity *versus* group antagonism, and agreement *versus* disagreement. This teacher may be viewed as "expressively oriented," again following categories described by Robert Bales.

The style of teachers or students also may be differentiated on the basis of the characteristic ways by which they express influence. Ned Flanders has described categories which enable the classification of persons as expressing either "direct influence" or "indirect influence."[22] Persons who tend to lecture to other persons, to give directions, and to criticize others and justify their own authority are viewed as expressing primarily "direct influence." Persons who tend to raise questions, to accept and elaborate on the ideas of others, to praise and encourage others, and to accept the feelings of others are viewed as expressing primarily "indirect influence."

In sum, the concept of style in educational transactions may be useful in observing similarities and differences between teacher and student styles and in observing the extent to which both teachers and students have a repertoire of styles that is employed in serving varying needs.

Activities

A more traditional view of transactions focuses attention on the repertoire of activities that students and teacher make use of. Activities may be categorized in any number of ways. For example, they could be classified on a student participation continuum with classroom activities requiring students to be receivers of information only, e.g., lecture situations or film showing, being at one end of the range and activities requiring high student participation, e.g., small group discussion or sociodrama situations, lying at the opposite end. Or, activities may be classified in terms of the behaviors entailed, e.g., reading, discussing, viewing, listening, writing, graphing, and gaming. From still another view activities may be classified with respect to teacher control and student power with some activities depending largely on the decisions and direction of the teacher and other activities deriving from the decisions of students and depending heavily on student self direction.

Another analysis of activities in educational transactions could consider the numbers of persons involved in cooperative or competitive situations. For example, a traditional testing activity would be ranked as a heavily competitive activity with little or no elements of cooperation allowed. A class discussion aimed at reaching a concensus would be highly cooperative with minimized elements of competition.

Still another analysis could examine activities with reference to their proximity to or dependence on the classroom setting. Library work and field trips, for example, would show less dependence on the classroom as the transaction locale.

The assumption in such analyses of educational transactions is that variety is preferable to the monotony of a continuous single activity. While this assumption may be pedagogically valid, the real importance of the analyses rests in the opportunity to see activities from a number of perspectives and to gauge their appropriateness to the nature and abilities of the students involved.

Two Basic Premises

The foregoing examination of transactions has proceeded from two basic premises. The first of these is that the teacher's perspective is the main source of ideas and data for the analysis of educational transactions. The dimensions of purpose, task, logical operations, role, style, and activities emanate from the sensitivities, experience, and frame of reference of the teacher. Rather than applying frameworks from other fields, such as viewing the classroom as a miniature political or economic system — e.g., identifying the application of sanctions or the allocation of scarce resources, these analyses proceed primarily from the teacher's knowledge of the classroom.

The second premise on which these analyses are based is that transactions and antecedent conditions are purposefully linked. The most pronounced connection between transactions and antecedent conditions is the purpose for which the transaction was conducted. Thus the analyst, whether an outside observer or the teacher participant, begins his work with a question: What is the teacher trying to accomplish in this transaction? Once he identifies the teacher's objective, he is in a position to construct a framework within which he will analyze and evaluate the transaction. This framework will be constructed largely from the perspectives identified in the preceding discussion of transactions.

This procedure is reflected in the following example. An evaluator is employed to assess the effectiveness of a social studies program. In the process of his evaluation he asks an involved teacher, "What are you going to try to achieve with your students today?" The teacher's response refers to the particular objective of developing the students' ability to empathize with persons of another culture. Knowing this purpose, the evaluator will begin to develop hypotheses concerning various aspects of the educational transaction that should occur in the teacher's classroom. For example, the evaluator anticipates that certain teacher styles, e.g., indirect influence, are likely to be more effective than others in promoting student empathy. He would further expect that excessive teacher control of the classroom activities would preclude the students' willingness to project their feelings publicly. The evaluator would also be sensitive to the expected analysis of values that would necessarily attend the study of another culture. Thus on the basis of a purpose, a crucial element among antecedent conditions prevailing in the educational situation, the evaluator was prepared to examine several aspects of educational transactions and to link his analysis with existing antecedent conditions.

We turn now to consideration of the links among antecedent conditions, transactions, and outcomes.

OUTCOME DATA

Outcomes, as defined earlier in this chapter, are identified as any modification in the responses of participants that can be linked empirically or logically to the educational process. According to this conception outcomes would include not only modifications in the responses of students but also changes in teachers, administrators, counselors, parents, and other participants in the educational process.

Outcomes in the social studies may be studied with reference to the antecedent conditions and educational transactions which precede and influence their achievement. That is, the social studies teacher who adopts the approaches suggested in this chapter will not perceive outcomes in isolation. Rather, he will know that outcomes have an educational history; that outcomes begin as wants felt and held by people; that these wants are translated into demands made upon the schools; that these demands are subsequently screened and shaped by educators into educational objectives; and that the objectives assist in organizing antecedent conditions and educational transactions as well as pointing to specific educational outcomes.

The conception of outcomes provided in this chapter will be dealt with by referring back to antecedent conditions and educational transactions in order to see if such prior conditions are useful in identifying outcomes. For example, do the four clusters of social forces identified by Schwab suggest different types of outcomes that may be observed in the evaluation process? Starting with the teacher, it is hypothesized that teachers will emphasize those outcomes for which materials and methods are available and organized in such ways that they are meaningful to teachers. Consequently, teachers will tend to emphasize specific items of knowledge as outcomes because social studies materials tend to be organized and presented in this fashion. This is not intended to deny that contemporary curriculum projects in the social studies have indeed provided different ways of organizing instructional materials, but it does raise a question about the provision of meaningful methods for presenting the new materials.

Beliefs and attitudes about learners also function to suggest outcomes. If learners are perceived as becoming increasingly sensitive to the practical applications of social studies concepts and generalizations, then outcomes which seem to teachers to have the greatest relevance to the life situations of learners may be emphasized. Perceptions and beliefs about the current intellectual status of a field also tend to affect outcomes. That is, the subject-matter cluster tends to change as new knowledge is accumulated in a field, and these changes are represented in the classroom by teachers who have had recent experience in the field. An example of this type of change is seen in the current emphasis in social studies classrooms on the perspectives, tactics, and values of the social scientist.

Finally, outcomes are influenced by the current demands of social-milieu groups in the society. The present emphasis on area studies in the social studies curriculum, particularly those areas designated as non-western, would seem to represent forces in American society which value increased knowledge about societies whose contacts with our society are increasing. Again, the pressure to include Afro-American history or culture courses in the social studies curriculum seem clearly to stem from groups designated as social-milieu groups.

In contrast to the relationships between antecedent conditions and outcomes described above, educational transactions would seem to relate to outcomes in more subtle ways. That is, educational transactions appear to provide the organization or structure of conditions by which outcomes are achieved. Such dimensions of transactions as objectives, tasks, roles, logical operations, styles, and activities include the elements for organizing the learning situation. It is believed that particular combinations of these elements would supply optimal situations for the achievement of some outcomes and minimal situations for the achievement of others.

A specific example will illustrate relationships between educational transactions and outcomes. One of the basic purposes underlying instructional materials developed by The Social Science Curriculum Study Center at the University of Illinois is that of providing students with opportunities to experience political processes which are subsequently used as data for classifying or categorizing activity, e.g., categorizing the personal use of resources for the purpose of affecting public policy as "political influence."[23] Beginning with the purpose of providing political experiences, the teacher considers what tasks must be performed to implement this purpose. He identifies his primary task as that of providing directions to develop situations which will best illustrate a few key aspects of interaction. As he plans for the transaction, the teacher may utilize the idea of role to establish a clear-cut division of labor in the situation. He may conceive his own role as that of providing directions and information as such elements are needed, while the students' roles will be the portrayal of different participants in the political situation. He may decide that the logical operation that will be especially relevant in developing the transaction will be that of categorizing or classifying. If so, the teacher will raise questions concerning the criteria employed in classifying data, the term or label attached to the classifying criteria, and the uses of the term in relevant situations. The teacher's style in this case would probably be "task-oriented" rather than "expressively oriented" and would utilize the style of indirect rather than direct influence. That is, emphasis would be on engaging in the political experience in contrast to an emphasis on social-emotional needs, and the teacher's communications would be primarily indirect, i.e., raising questions, elaborating on student ideas, giving praise and encouragement, and accepting student feelings. Finally, activities would be selected that highlighted student interactions or role-playing, rather than stressing the provision of specific information.

Thus it can be seen that if a particular outcome is to be achieved, a host of factors in the educational transactions have to be selected and organized so that they will consistently lead to a particular end product. There must be coherence between the desired outcome and the factors that are emphasized in the educational transaction.

SUMMARY

This extended treatment of antecedent conditions, transactions, and outcomes in the social studies has attempted to describe a teaching perspective in the evaluation process. However, in spite of the fact that numerous dimensions of the educational process have been identified, elaborated upon, and linked, the question may still be raised, "What importance does this work have for evaluation?"

We shall attempt to respond to this question by reference to two grounds or criteria. First, an understanding of antecedent conditions, transactions, and outcomes is believed to be important because it provides a context for interpreting and understanding the outcomes arrived at educationally. That is, evaluators will not be limited in their analysis of outcomes to the meaning of outcomes in themselves. They will be able to analyze outcomes with reference to purposes, conditions, strategies, and means. Secondly, an understanding of the full range of educational circumstances will undoubtedly suggest reasons for continuing successful programs as well as alternative ways of improving unsuccessful programs. Prior to the identification of antecedent conditions and dimensions of transactions, it typically has not been clear or even relatively unambiguous why things happened as they did. A utilization of this approach should result in greater clarity of educational means and ends.

Finally, a knowledge of antecedent conditions, transactions, and outcomes should result in greater consistency among societal values, professional values, and values implicit in educational activities. This is to say that until we have adequate descriptions and analyses of antecedent conditions, transactions, and outcomes we shall not be able to compare the values underlying these dimensions with values emanating from other sources in the society.

FOOTNOTES

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CHAPTER EIGHT

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A Model for Analyzing Curriculum Materials and Classroom Transactions

This chapter is, to a large extent, an account of a small idea that has grown to large proportions.

From its beginning in 1963 and 1964, a major purpose of the Social Science Education Consortium has been to collect and disseminate information about new ideas and new materials for social studies. During the early years of the major social science education projects funded by the U. S. Office of Education and the National Science Foundation, the Consortium acquired a substantial collection of documents related to the projects. Staff members visited most of the projects. Position papers, working papers, preliminary versions of materials, and reports of site visits went into the materials collection. Eventually published materials were added as they came off the press in preliminary and final versions. Materials from projects funded by private foundations were also added, plus some selected innovative materials from state and local educational organizations.

ORIGINS AND DEVELOPMENT OF THE MATERIALS ANALYSIS SYSTEM

The question soon arose as to how this wealth of information could be made available and useful to the many persons interested in it. Was there some way the materials could be described, summarized, annotated, and/or analyzed so that each user would not have to start from scratch to become acquainted with them? If the new materials were as sophisticated and profound as unprecedented financial support and widespread hopes might lead one to expect, they could not be understood by casually flipping through the pages.

We began with a brief mimeographed form containing a dozen or so questions. As we used this form, many additional questions suggested themselves. The form was revised and enlarged several times. As it grew, the necessity for a logical structure became more apparent. An early version of what we called a "curriculum analysis system" was published in *Social Education,* October 1967.[1] Before that article was published, still another version had been developed, of considerably greater complexity. This version has been used by many groups and is the basis of much of this chapter. Upon the insistence of a number of persons that a curriculum is more than the materials, we have changed our nomenclature to "curriculum materials analysis system" and the initials CMAS are sometimes used in referring to it.

Suggested Uses of the Curriculum Materials Analysis System

The suggestions we made in the 1967 *Social Education* article for eight possible uses of the CMAS are still relevant and are reproduced here with minor revisions:

1. *General library use:* To assist users to become quickly acquainted with the materials in a curriculum library.
2. *Analysis of trends:* To facilitate the analysis of trends in curriculum materials, such as the increasing or decreasing use of particular types of objectives, teaching strategies, teaching aids, etc.
3. *Field data collection:* To serve as a framework for accumulating comparable data from different sources on classroom use of materials.
4. *Decision making:* To assist in choosing new curriculum materials.
5. *Curriculum use:* To help classroom teachers understand new materials that have been selected for their use.

6. *Curriculum development:* To suggest to curriculum developers all of the dimensions of curriculum philosophy, construction, and use that they might take into consideration in their work.
7. *In-service education:* To introduce teachers to new ideas and approaches in new curriculum material, apart from specific adoption decisions. (In curriculum analysis seminars which were part of Experienced Teacher Fellowship Programs at Purdue University and at the University of Colorado, we found the development and application of a curriculum materials analysis system to be a very stimulating method of getting teachers involved with all the elements of curriculum philosophy, construction, and use.)
8. *Pre-service education:* To acquaint students with a broad range of curriculum materials through the study of analyses done by others; and to introduce students to all the dimensions of curriculum construction and use by having them perform curriculum analyses of their own.

Who Will Grind the Wheat and Bake the Bread?

The CMAS having been developed and a number of uses for it having been suggested, the question arose: Who would apply the analyses to curriculum materials and who, if anyone, would essay the various suggested uses of the CMAS and of the analyses? Application of the system would be a demanding task, and the manpower directly available to the Consortium was very limited.

Opportunities for analyzing, testing, and applying the CMAS presented themselves in the form of workshops, conferences, and other educational endeavors in which Consortium staff members were involved. The general structure and purposes of the CMAS were presented at many conferences throughout the country. We found that one of the best patterns of presentation was to get conference participants involved in doing analyses or parts of analyses; seldom did we find it effective to merely talk about the purposes, nature, and uses of the CMAS without getting participants involved with the system itself and/or with materials to which the system was applied.

Short-term conferences, however participative, did not produce curriculum analyses. The production of analyses required longer commitments of time. Such commitments were made in a number of cases; the two most common patterns were (1) full-time institutes of a week or more devoted primarily or entirely to curriculum analysis and (2) curriculum committees or other working groups established by school districts and meeting at intervals through the school year. Descriptions of some of the processes and products of these institutes and working groups are given in later parts of this chapter.

Two Experienced Teacher Fellowship Programs have also made substantial use of the CMAS. At Purdue in 1966-67 a seminar of nine Fellows analyzed curriculum materials and simultaneously critiqued the analysis system; their critiques contributed substantially to the revision of the CMAS which was made in 1967. At the University of Colorado in 1968-69, each of the 25 Fellows in the program analyzed two or more curriculum materials packages in depth, used their analyses as a partial guide and framework for teaching the materials, and revised their analyses on the basis of their classroom experience. We have drawn freely and gratefully on these analyses in writing those parts of this chapter which deal with the results of curriculum analyses and with the use of the CMAS as a basis for making observations and analyses of classroom testing of curriculum materials.

How long does it take to make an analysis of a package of curriculum materials using the CMAS? The answer is [illegible] depends mainly on (1) the length and complexity of the materials, (2) the talents of the analyst, (3) the previous familiarity of the analyst with the materials and with the CMAS, and (4) the desired length and complexity of the analysis.

A good illustration of a feasible pattern and length of time to produce acceptable analyses is our experience with a series of five 5-day institutes in the summer of 1968. Fifteen classroom teachers, supervisors, and college methods teachers attended each institute; they were an able and well-motivated group, only a few of whom had much previous knowledge of the CMAS or of the materials with which they worked. On Monday there was presentation and discussion of the CMAS and selection of the particular curriculum materials which would be analyzed by individuals or by teams of two or three. Tuesday, Wednesday, and Thursday were spent in intensive work on the analyses, with staff consulting help and with occasional breaks to discuss general problems of analysis or to explore further some particular sections of the CMAS. By Thursday afternoon each individual or team had completed their analysis. Friday morning was spent in exchanging views on the institute experience and on the CMAS, and the institute adjourned at noon. The institutes were judged by participants and staff to be highly successful as learning experiences, and the analyses produced were of good quality.

From our experience in these institutes and in many other situations, we would judge the minimum time required for a successful analysis of a package of curriculum materials to be in the neighborhood of 20 man-hours. This is probably a bare minimum, and the requirement in many situations is probably much higher, depending on the four variables enumerated above.

A Brief Summary of Uses Made of the CMAS

For each experience with the use of the CMAS of which we have knowledge, there are probably several more that we do not know about. We have had numerous requests for information about the CMAS and for permission to use it in various ways; we always request information on uses made by these inquiries, but only occasionally receive such feedback.

To our knowledge, the most extensive use of the CMAS to date is in various in-service education configurations. Many presentations of the CMAS have been made by SSEC staff members and others to many in-service groups. As mentioned previously, we have found these to be most successful when there is audience participation in learning, critiquing, or applying the system. In a much smaller number of in-service situations, groups of teachers and supervisors have committed substantial blocks of time to producing analyses of curriculum materials packages. The details and results of some of these situations are described in a later section of this chapter.

A number of the other uses of the CMAS, suggested above, depend to a large extent on the availability of completed analyses. The SSEC has at this writing approximately 140 analyses of about 25 different curriculum units or packages. These have been released only on a selective basis to date. Many of them were done in a short time, possibly with inadequate resources, and in some cases for the purpose of training rather than producing a finished product. A system is being established for judging the quality and usefulness of the analyses and making them generally available. This dissemination effort may eventually become a part of the information system of EPIE (Educational Products Information Exchange).

The use of curriculum materials analyses in guiding the selection and classroom use of new materials has probably been confined mainly to those schools systems and teachers who have done their own analyses; this use can be expanded when analyses become generally available. We have received many inquiries from college methods teachers that suggest that the CMAS is being used in some form in both graduate and undergraduate courses although no specific reports on such activities have been received. The use of curriculum materials analyses by curriculum libraries, by curriculum developers, and for the analysis of trends in social studies materials will, as with other uses, depend on the availability of the analyses.

Our own interest in "armchair" analysis of curriculum materials has recently expanded to the use of the CMAS as a framework for analyzing classroom experience with new materials. We have done a little work of this kind with school systems and a great deal in the University of Colorado Experienced Teacher Fellowship Program for 1968-69. This work is reported in the section below on "Transactions Analysis."

Critiquing and Revising the CMAS

Important by-products of many of the curriculum materials analyses that have been made were critiques of the CMAS itself. A number of analysts have suggested revisions, deletions, and elaborations of specific parts of the CMAS; some have suggested and spelled out wholesale revisions. In addition, we have had two conferences aimed particularly at critiquing of the system. The first was at Purdue University in April 1967. The second was at the University of Colorado in May 1968, supported by and attended by staff members of eight of the Office of Education's regional educational laboratories.

Inputs from the activities just described, together with those arising from the experience of SSEC staff members, have resulted in a large collection of suggested revisions and elaborations of the CMAS. A major re-working of the entire system is overdue, and we hope that resources for this effort will be available within the next year or so. The criticisms of the CMAS made by Michael Scriven in a recent issue of the *EPIE Forum* are for the most part well-taken.[2]

While there are a myriad of suggestions for detailed changes in the CMAS, the broad-scale suggestions can be grouped under three headings: explication, discrimination, and multiple versions. These will be discussed briefly.

Explication. Most of the CMAS is in topical-outline form, and the meaning of many of the items is not clear. Succinct explanations of all terms are needed, together with illustrations. These suggestions, in our view, point to the desirability of a handbook on the system, which might contain several examples to illustrate each item and suggested background readings on the major ideas used in the system.

Discrimination. Many questions about balance in the system have been raised. Is it too inclusive in some respects, inadequate in others? Perhaps it raises some questions which are of interest — or are answerable — for few if any sets of materials. There may be excessive use of the taxonomies of educational objectives associated with the names of Bloom and Krathwohl. The theories of Bruner and Piaget may be given excessive weight at the expense of other learning theorists. And finally: whatever items are properly included in the CMAS, is there some method of weighting the items according to their importance, to assist decision-makers in using the analyses to make final decisions about the selection of materials?

Multiple versions. The potential users of curriculum materials analyses and of the CMAS vary greatly in the amount of information they want. The serious student in a preservice or inservice program may want substantial depth and background on all items in the CMAS, whereas the busy superintendent may wish to see a half-page analysis of a curriculum package which gives only the most salient items for his particular purposes. Perhaps two or more versions of the CMAS and of the analyses should be constructed to meet the needs of various kinds of users.

The Need for a Comprehensive Framework for Analysis and Evaluation of Curriculum Materials

The substantial effort that has been made by the developers and users of the CMAS to probe and explicate the nature of curriculum materials has suggested to some critics a lack of recognition of the importance of the child, the teacher, and the various other components of the educational system. Excessive concentration on materials immediately suggests to some critics that persons so occupied may be guilty of the darkest of all educational crimes — a belief in teacher-proof materials.

We do not believe in teacher-proof materials any more than we believe in materials-proof teachers. Nevertheless, we have felt the necessity of putting our emphasis on the analysis of materials into a broader framework that shows the relationship of materials to the other components of education. Such a framework is described in the following section.

A MODEL FOR ANALYSIS AND EVALUATION OF CURRICULUM MATERIALS

The model about to be described uses some of the major concepts and terms presented by Payette and Cox in chapter 7 and originally borrowed by us from Robert Stake. The term "transactions" as used by Payette and Cox and by us represents a useful concept to denote the events that take place within a structured educational situation — mostly, but not necessarily, within the classroom. "Outcomes" is an equally useful concept, representing all the final results of the transactions. We use the concept "antecedent conditions" in a manner much like that of Payette and Cox, to include the various inputs to a learning situation. However, we feel the necessity of dividing the inputs into two categories, the focus component and the fixed antecedent conditions, as will be seen in the following explication.

One more word of introduction to this section should be added. Perhaps apology should be made for starting from scratch, with an essay on the nature of knowledge and of education. However, the discussion moves on quickly to the construction of our general model and the variations on it; and we feel that the introductory subsections are needed to give a clear view of our entire frame of reference.

Organizing Knowledge

The world has meaning to human beings only to the extent that they organize and manipulate the sensory messages they receive from it. Through one or more of his senses, an individual forms a *percept* of an object or an event. He senses a flash of light, a pin-prick, a voice, a configuration of colors, a cool breeze; he associates these sensations, more or less specifically and accurately, with objects and events outside himself. In the process of learning more about the world, the individual groups his percepts into *concepts,* which are abstract ideas generalized from particular instances. Many percepts of many voices are formed into the concept of voice; many encounters with many hard objects coalesce into the concept of hardness; and so on. Concepts are useful because they organize a myriad of sensory perceptions into a manageable number of mental constructs, giving man's finite mind a grasp on the infinite variety of sensations that are showered upon him by his environment. They are also useful because they provide a basis for forming associations, more or less reliable, among events in the real world. Voices are associated with human beings and with messages from them; hard objects are associated with hurtful encounters; and so on.

As the individual organizes his percepts into concepts, he moves simultaneously into two new worlds — the social world and the world of abstract thought. Concepts relate the individual to society by virtue of the fact that he acquires most of his concepts from society; the infant acquires a limited number of concepts through his own efforts, but the child and the adult acquire most of theirs from other persons. Concepts also relate the individual to society because they are the most essential ingredient of language. Every common noun, every adjective, and every adverb represents a concept; so also do pronouns and prepositions. Indeed every word, with the exception of proper nouns, represent a concept. (On the other hand, not every concept can be represented by a word; it may take many words to represent or describe some concepts.)

The formation and acquisition of concepts also carry the individual into the world of abstract thought. A concept is an abstraction in that it selects out a common element from a group of events which also have disparate elements, leaving the disparate elements behind. The concept of voice abstracts from the voice of Mother, the voice of Uncle Jim on Tuesday, and the voice of Uncle Jim on Sunday. The concept of hardness abstracts from the hardness of the floor, of the table, and of the hammer. The formation and acquisition of concepts represent the first step in a long series of abstractions that carry man to the frontiers of science and the arts.

Just as percepts are grouped and distilled into concepts in man's pursuit of ways to understand and manage his environment, so concepts are formed into larger groupings in the same pursuit. These larger groupings are called content areas, or subjects. The broadest grouping of content areas is into science, arts, and humanities. Science is commonly divided into natural science and social science. Social science is commonly divided into sociology, economics, and political science. Anthropology, psychology, and geography cut across the broad classification of natural and social sciences, and history cuts across social science and humanities; all four may eventually decide that their major habitat is within social science. Education usually floats in limbo with respect to this classification of knowledge, but it must eventually be recognized as the social science *par excellence,* concerned more than any of the other social sciences with explaining, predicting, and controlling the behavior of human beings. It must become the eighth social science.

Studying Education

Education can be defined, with moderate precision, as any efforts to structure situations so that the speed of learning is greater, or the content different, than it would be in the absence of such efforts. This definition excludes learning that takes place from experience that is not structured by the learner or by others with the express purpose of enhancing learning. It includes all that takes place within organized educational institutions as we know them, and probably a good bit besides. By this definition, education encompasses the concepts of teacher, student, classroom, materials, school board, book, desk, parent, film, community organization, supervisor, and many other kinds of people and objects, to the extent that each is a part of the structured learning situation.

We have now defined a broad area of human study — education — and indicated many of the concepts that are a part of that area of study. How does one investigate a particular area of human knowledge, once that area and its building blocks (concepts) have been identified? What is required is a process of model-building, which is a necessary step toward the constructing and testing of hypotheses, generalizations, and theories. While the term "model-building" has only recently become popular in education and the other social sciences, the process that it denotes is an old and essential step in the process of scientific investigation. The process is one of preliminary grouping and arrangement of concepts — hopefully an arrangement that will facilitate the formulation of fruitful hypotheses and theories. In the remainder of this section a model for studying education is constructed and used in various ways, including the construction of specialized models derived from the general model.

Figure 1 shows the basic descriptive model of the teaching-learning process. The term "inputs" includes all of the ingredients that go into a structured educational situation: teachers, school boards, classrooms, materials, students, parents, publishers, principals, etc. The term "transactions" includes all of the events that occur within the structured learning situation: teacher-student actions and interactions, reading, composing, discussions, tests, field trips, trips to the principal's office, student interactions, American Legion essay contests, etc. The term "outcomes" includes all of the effects of the structured learning situation: changes in the knowledge and attitudes of the students, in the skills of the teacher, in the attitudes of the community toward the schools, in the number of university scholarships received, etc.

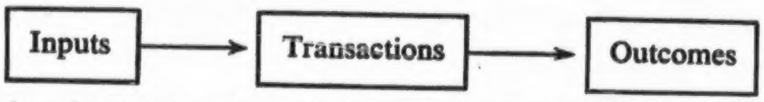

FIGURE 1: Basic Descriptive Model of the Teaching-Learning Process

Inputs to the Teaching-Learning Process

Figure 1 represents an extremely simplified model, in which all of the

Figure 1 represents an extremely simplified model, in which all of the

objects and events of a very complex situation are sorted into three general groupings. For particular purposes it is useful to elaborate the model. Figure 2 represents a model in which the "inputs" of Figure 1 are sorted into four categories. The denotations of "student" and "teacher" in Figure 2 are obvious. The term "materials" refers to all teaching aids, such as books, maps, transparencies, games, and tests;

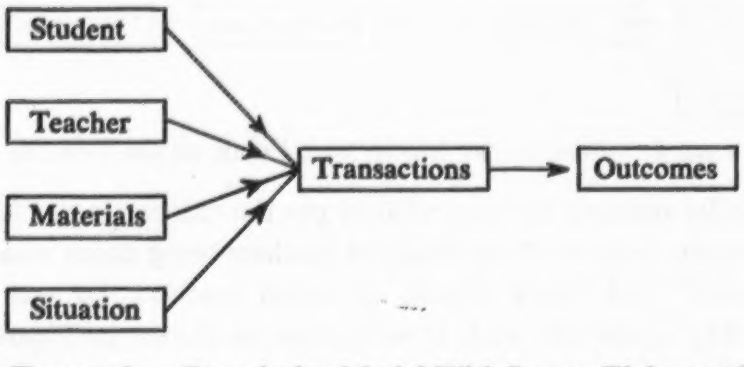

FIGURE 2: Descriptive Model With Inputs Elaborated

it includes all “software” but not “hardware.” The term “situation” is a catch-all, indicating all inputs not denoted by student, teacher, and materials. It includes the classroom, “hardware,” building, principal, parents, community groups, etc.

Having elaborated the inputs, we may wish to focus on a particular input to provide an evaluative frame of reference. Suppose, for example, we wish to focus on the student in the teaching-learning process, to answer questions such as “What kinds of outcomes can be expected from what kinds of students?” and “What types of classroom transactions are most suitable for students A, B, and C?” The model can be revised as shown in Figure 3. Here the student is placed in the “focus.” Teacher, materials, and situation become “antecedent conditions”— elements of the teaching-learning situation which are taken as given, not subject to special attention or to manipulation while the focus is on the student.

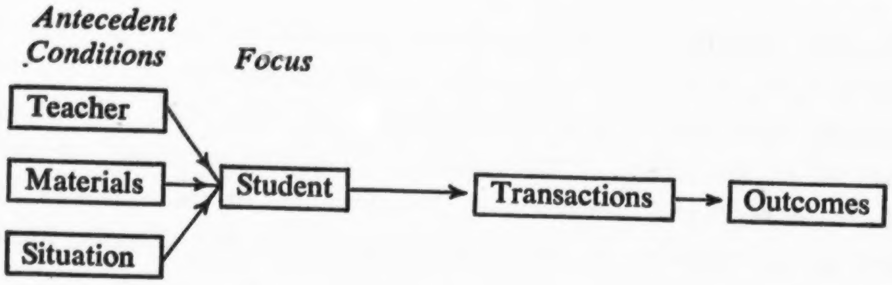
Antecedent Conditions
Focus
Teacher
Materials
Situation
Student
Transactions
Outcomes

FIGURE 3: Descriptive Model with Focus on the Student

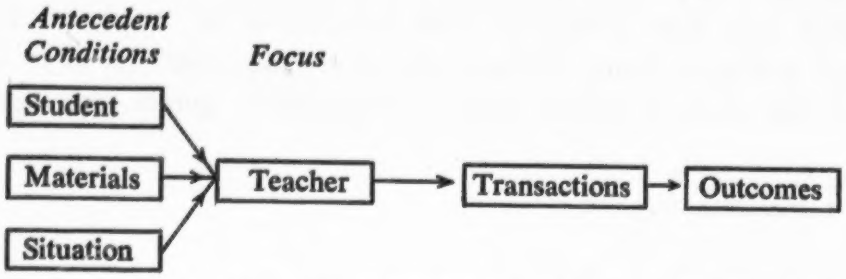
Antecedent Conditions
Focus
Student
Materials
Situation
Teacher
Transactions
Outcomes

FIGURE 4: Descriptive Model with Focus on the Teacher

In a similar manner, we may wish to put the teacher in the focus, to study questions such as “What kinds of teachers bring about what kinds of outcomes?” and “How should we select teachers for our school system?” The model for such investigations is shown in Figure 4, in which student, materials, and situation become antecedent conditions.

Similarly, it might at times be useful to use a model in which the "situation" is in the focus, to answer questions such as "What effects do community attitudes have on the classroom behavior of our teachers?" and "Will the parents of our children support efforts to teach them how to learn if it is at the expense of learning facts?"

Our particular interest in this chapter is to use a model in which materials are in the focus, with student, teacher, and situation considered as antecedent conditions. This model is shown in Figure 5. It should be clear that such a model does not omit the student, the teacher, and the situation from consideration, but leaves them for the attention of other studies at other times.

Figures 1-5 have been termed "descriptive" models. They help us formulate and answer questions about what is going on in the teaching-learning situation. They also assist in the formulation and answering of questions about what is causing what. We might also refer to Figures 1-5 as "descriptive-analytical" models, since they suggest both description and analysis. They do not, however, suggest *prescriptive* action — doing something about the results of one's investigations.

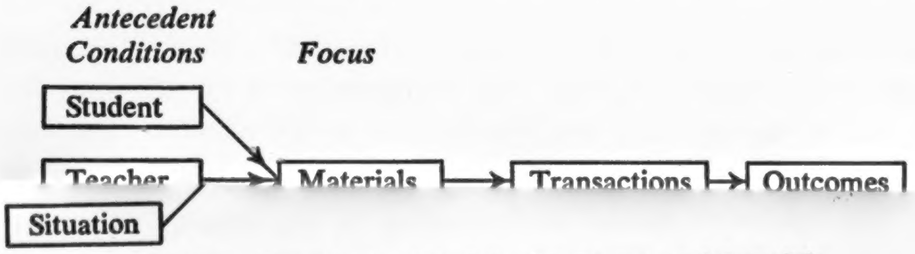

FIGURE 5: Descriptive Model with Focus on Materials

Cybernetic Models

In order to suggest the comparison of outcomes with specified criteria and modification of the system as a result of such comparisons we need a *cybernetic* model. In Figure 6 the basic model of Figure 1 has been modified to make a cybernetic model. In this model, the outcomes are transmitted to a decision-making center, where they are compared with specified criteria; judgments resulting from this comparison of outcomes with criteria may lead to actions which modify the inputs.

In Figure 6, the terms "detector," "selector," and "effector" have been added in parentheses in the appropriate boxes. These terms are a part of the useful language of cybernetics, which can be applied to a very wide range of situations. The effector is whatever causes the action under consideration (educational inputs in our model). Whatever the action (educational transactions in our model), it is measured by some means called a detector (the outcomes). The outcomes are reported to a decision-maker or -makers, called a selector, who compares the outcomes with established criteria and makes a judgment that affects the composition or behavior of the effector.

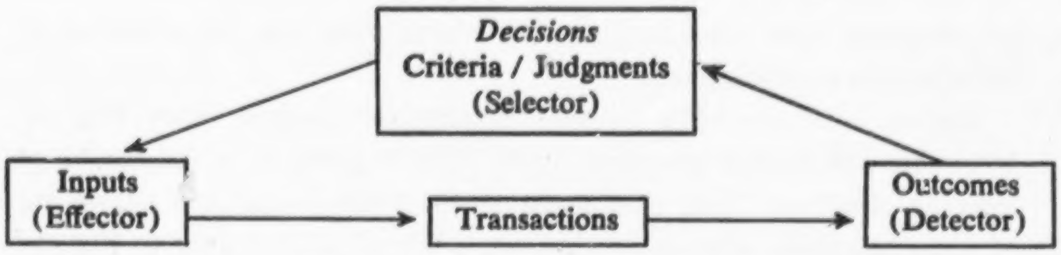
Decisions
Criteria / Judgments
(Selector)
Inputs
(Effector)
Transactions
Outcomes
(Detector)

FIGURE 6: Basic Cybernetic Model of the Teaching-Learning Process

The common example of a temperature-control system is a clear example of a cybernetic system. The thermometer is the detector, the thermostat is the selector, and the furnace is the effector. The furnace determines the "action" (the temperature of the air), which in turn acts on the detector, which reports to the selector, etc.

The cybernetic model corresponding to the descriptive model of Figure 2 is shown in Figure 7, where the possibility of changes in any of the four classes of inputs, as a result of comparing outcomes with criteria, is suggested.

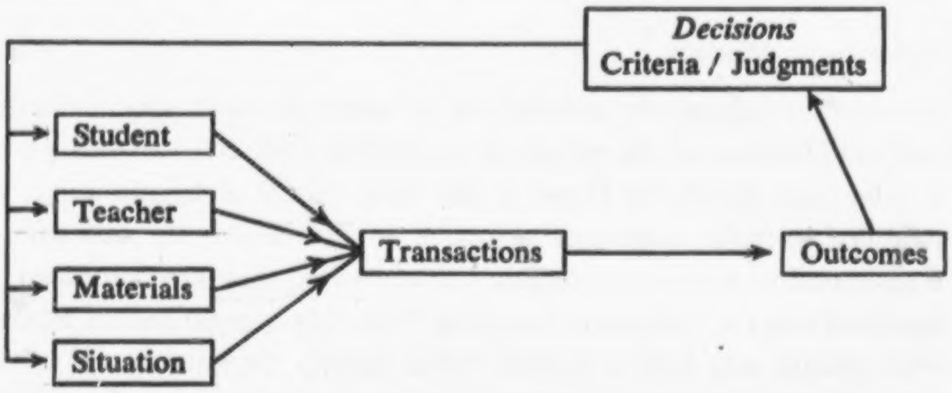
Decisions
Criteria / Judgments
Student
Teacher
Materials
Situation
Transactions
Outcomes

FIGURE 7: Cybernetic Model with Inputs Elaborated

Cybernetic models corresponding to the descriptive models of Figures 3, 4, and 5 could also be constructed. We will show only the analogue of Figure 5, with the focus on materials; see Figure 8. In this model, decisions are made only with respect to materials, which may be rejected, adopted, or adapted; student, teacher, and situation are considered for the moment as fixed antecedent conditions.

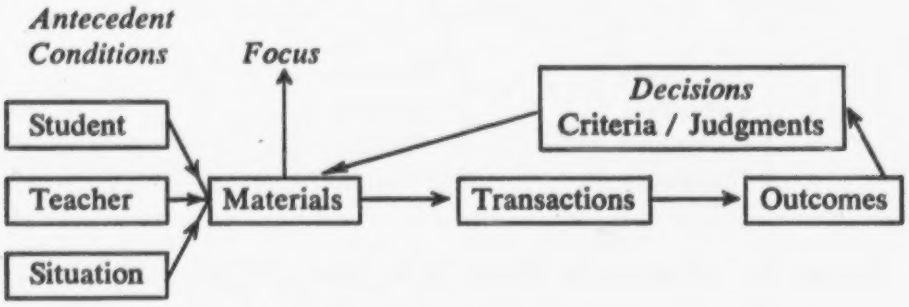

FIGURE 8: Cybernetic Model with Focus on Materials

Thus far we have considered the outcomes of classroom transactions as the only source of data for making decisions. Most research on the teaching-learning process has followed this route, with particular emphasis on outcomes related to the lower levels of cognition — on "knowledge," "comprehension," and "application" in the Bloom taxonomy. There are, however, other grounds for decision-making, based on direct observations of materials and of transactions. These will be developed within the framework of the general model.

Analysis of Curriculum Material

Figure 9 shows a subsystem for analyzing and judging curriculum materials, within the larger model of Figure 8. What is required in the subsystem is a method for direct observations of relevant aspects of materials and criteria by which to judge those data. The elements of a curriculum materials analysis subsystem are described in the following section of this chapter.

The subsystem for materials analysis shown in Figure 9 indicates that materials can be subjected to analysis, that the results of the analysis can be compared with criteria, and that decisions to reject, adopt, or modify materials can then be made. Does this mean that the scene of the action (classroom transactions) and the outcomes of the educational

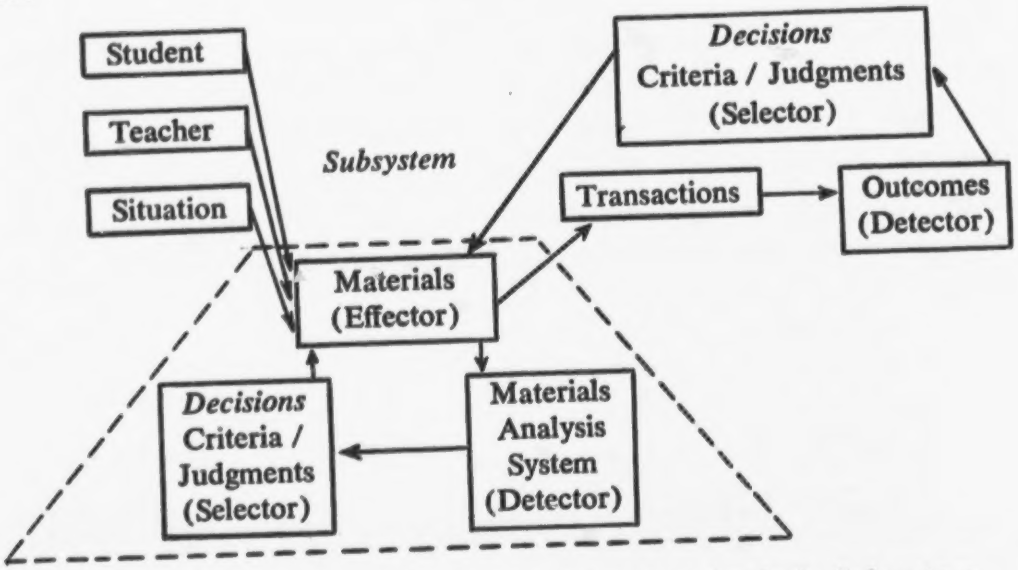
Student
Teacher
Situation
Subsystem
Decisions
Criteria / Judgments
(Selector)
Transactions
Outcomes
(Detector)
Materials
(Effector)
Decisions
Criteria /
Judgments
(Selector)
Materials
Analysis
System
(Detector)

FIGURE 9: Cybernetic Model with Materials Analysis Subsystem

process can be ignored? The answer to these questions is both "yes" and "no."

The answer is "no" in that the materials analyst must always have in mind the possible transactions and outcomes to which the materials will contribute. This is the point of the enterprise; materials are relevant only to the extent that they are likely to contribute to desired transactions and outcomes. The necessity for keeping in mind the presumed or "shadow" transactions and outcomes is indicated by the dotted lines and boxes in Figure 10.

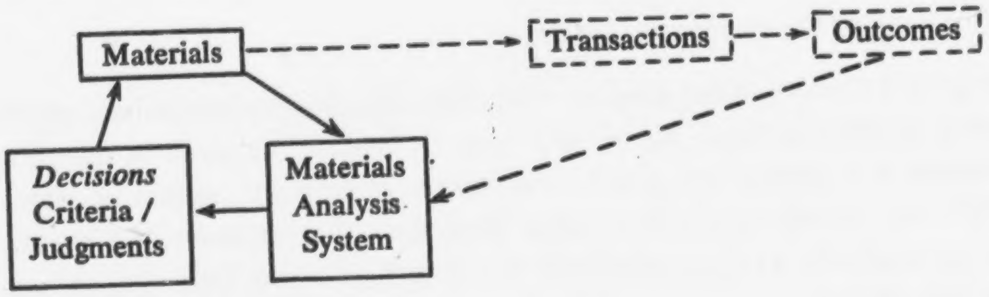
Materials
Transactions
Outcomes
Decisions
Criteria /
Judgments
Materials
Analysis
System

FIGURE 10: Materials Analysis Subsystem, with Shadow Transactions and Outcomes

The reason for analyzing materials directly rather than testing them in the classroom and observing the outcomes is to achieve economy and effectiveness. The trip through transactions and outcomes is expensive; and, in view of the great complexity of attributing particular outcomes to particular inputs, it often gives inconclusive results. It is true that the final proof of the pudding (the materials) must be in the eating (the outcomes); but short of final proof it may be highly enlightening, practical, and economical to arrive at as many plausible hypotheses and tentative conclusions as possible via the shorter route of materials analysis.

Some conclusions about probable outcomes can be reached with a high degree of probability through analysis of materials. If the materials contain no sociological insights, it is unlikely (though perhaps not impossible) that they will help the student gain sociological insights. If the materials contain errors in economic reasoning, it is unlikely that they will aid the student to do his economic reasoning correctly. But beyond such obvious conclusions about probable outcomes, the materials analyst may be able to say much more about the likely transactions and outcomes of using particular materials. The analyst is likely to be a person with substantial classroom experience with curriculum materials; the judgments he makes on the basis of a careful analysis of a set of materials may give highly reliable indications of the likely outcomes to be expected when the materials are used in the classroom.

Observation and Analysis of Classroom Transactions

In the last ten years or so, there has been a growing interest in making and analyzing observations of the classroom behavior of teachers and students. *Mirrors for Behavior* describes 26 such systems in its six volumes.[3] In addition to the systems described in *Mirrors for Behavior*, there are at least another 26 systems for the observation and analysis of classroom behavior. Most of these systems, unfortunately, focus mainly on the classroom behavior of teachers, giving little attention to the other inputs to classroom transactions.

The observation and analysis of classroom transactions comprise another subsystem of our general cybernetic model, as shown in Figure 11. The subsystem shown in Figure 11 is not complete, however. On the one hand, the analyst of the classroom transactions must keep in mind the outcomes that are likely to result from particular kinds of transactions; outcomes, although not measured in this subsystem, must maintain a "shadow" existence in the mind of the transactions analyst. On the other hand, the decision-maker cannot act directly upon classroom transac-

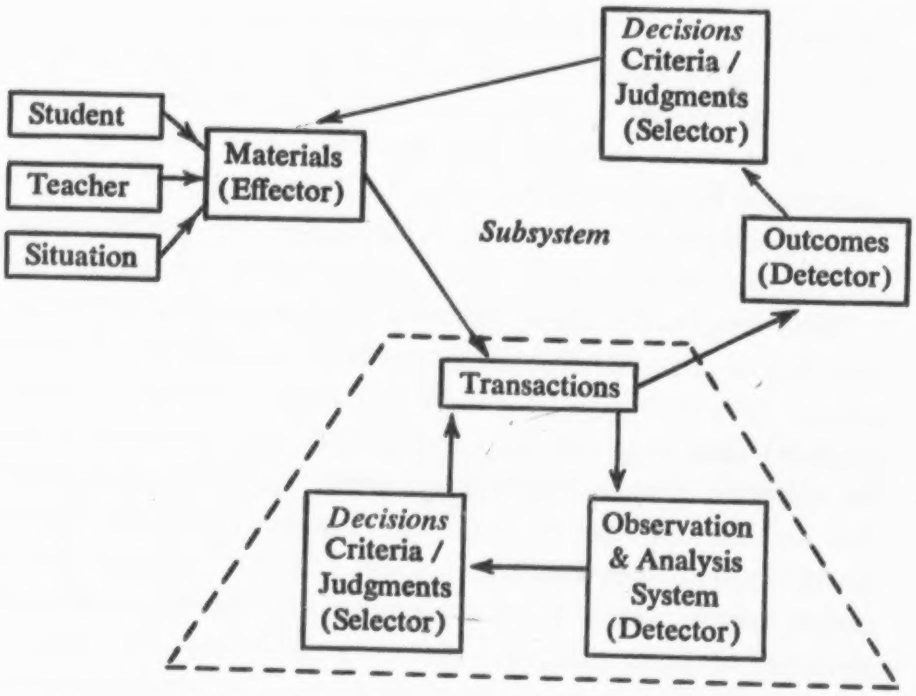
Decisions
Criteria /
Judgments
(Selector)
Student
Teacher
Situation
Materials
(Effector)
Subsystem
Outcomes
(Detector)
Transactions
Decisions
Criteria /
Judgments
(Selector)
Observation
& Analysis
System
(Detector)

FIGURE 11: Cybernetic Model with Transactions Analysis Subsystem

tions; he can affect transactions only by changing some aspect of the inputs — of the student, teacher, materials, or situation. Therefore one or more of the inputs must be a part of the transactions-observation subsystem. The inclusion of materials in the transactions-observation subsystem and of outcomes as a shadow component of the system are shown in Figure 12.

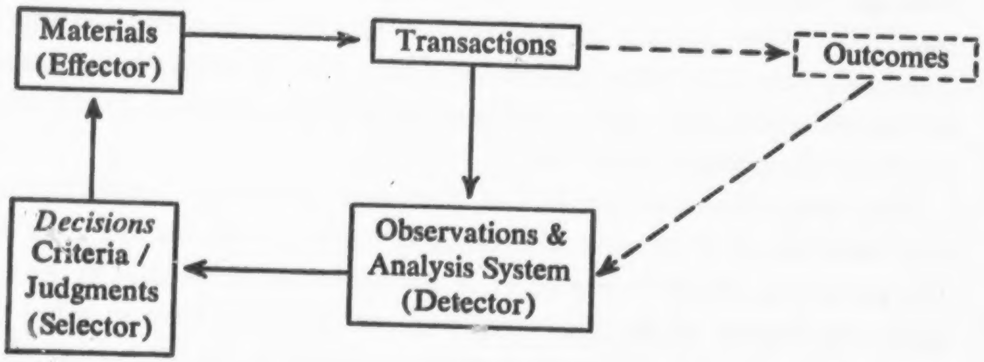
Materials
(Effector)
Transactions
Outcomes
Decisions
Criteria /
Judgments
(Selector)
Observations &
Analysis System
(Detector)

FIGURE 12: Transactions-Observation Subsystem, with Shadow Outcomes

We report in the following sections some of the work we have done with the materials analysis subsystem and the transactions analysis subsystem. We have done virtually no work on the analysis of outcomes, in view of the relatively large amount of work done in this area by others.

A CURRICULUM MATERIALS ANALYSIS SYSTEM

Some background on the development of the Curriculum Materials Analysis System has been given above. The first formal system was developed as part of our work with the Wabash Valley Education Center, a large ESEA Title III center in northwest Indiana, in the fall of 1966. That system contained eight major categories, as follows:

1. Rationale: An investigation and recording of *why* the curriculum package is trying to accomplish certain objectives.
2. General Objectives: A determination of *what* the program is trying to accomplish, in broad terms.
3. Behavioral Objectives: Setting out what *specific* outcomes are expected, in terms of observable behavior of children.
4. Structure of the Curriculum Materials:
   a. Substantive: An investigation of the structure of the social science content, and its ordering in the curriculum.
   b. Affective: An investigation of the attitudes and values explicit and implicit in the materials and their interrelationships.
5. Teacher Strategies and Learning Theory: Working out a reasoned case for the things the teachers do and the things the children do when working through these materials.
6. Evaluation: The formulation of judgments determining to what extent the general objectives and behavioral objectives have been accomplished, and making explicit how we know they have been accomplished.
7. Teacher Capabilities and Training: Questions that are structured to determine the needed training or retraining necessary to cope effectively with the set of curricular materials.
8. Cost: Money costs in terms of materials, equipment, and teacher training. Psychic costs in terms of individual and institutional strains in changing management patterns of the classroom, the school, and the school system.

The article which appeared in *Social Education*, October 1967,[4] was based on these categories.

In the winter of 1966 a small conference sponsored by the Educational Products Information Exchange (EPIE) Institute was held at Lake Mohonk, New York, to consider methods for describing and evaluating educational products of all kinds — "software" and "hardware." Consortium staff members at that meeting benefitted particularly from the views of Robert Stake and Ira Gordon. This conference, plus the graduate seminar at Purdue University, already mentioned, contributed to a revised version which was presented in the *EPIE Forum* of December 1967[5] and the *SSEC Newsletter* of February 1968.[6]

In this section, the major headings and subheadings of the CMAS are presented, with examples of their application drawn from analyses made by participants in the University of Colorado's 1968-69 Experienced Teacher Fellowship Program in Economic Education. The major headings, along with the curriculum materials from which examples have been drawn to illustrate them, are outlined below.

Major Heading of CMAS	*Curriculum Materials from which Examples Are Drawn*
1.0 Descriptive Characteristics	Anthropology Curriculum Project (University of Georgia, Project Social Studies)
2.0 Rationale and Objectives	*Comparative Political Systems* (Carnegie-Mellon University; Fenton, Project Social Studies, published by Holt, Rinehart, and Winston)
3.0 Antecedent Conditions	*Manpower and Economic Education Opportunities in American Economic Life* (Robert Darcy and Phillip Powell)
4.0 Content	Harvard Project Social Studies and *ECON 12* (San Jose State College, Project Social Studies)
5.0 Instructional Theory and Teaching Strategies	*Development of Economic Materials for Secondary Schools* (Ohio State University; Meno Lovenstein, Project Social Studies)

6.0 Overall Judgments	Contra Costa Social Studies Program, Grades 1-6 (Hilda Taba)

The major headings and subheadings of the CMAS, each of them illustrated by an example from an actual analysis, follow.

1.0 DESCRIPTIVE CHARACTERISTICS

(Illustrations from Anthropology Curriculum Project, University of Georgia)

What are the general characteristics of these materials? How can they be described and characterized?

1.1 *Media available from the producer*

The printed materials include a textbook for each grade, 1-7. Also there are student readings, programmed materials, a teacher's guide for each of the seven grades, objective tests, some films, and recordings for the language element of the package.

1.2 *Sources of materials*

These materials are produced by the Anthropology Curriculum Project, the University of Georgia.

1.3 *Time required*

It is suggested that the teacher plan to use from 25 to 30 days to teach and test the material for each grade level.

1.4 *Style*

At the present the materials are in lithograph form, vocabulary words are underlined, and summaries are provided. The materials are written in straightforward style and contain many complex words.

1.5 *Money cost*

The cost of the materials varies with each grade. A sample set for grade 1 is $5.00. Grade 4 costs the same. Sample sets for grades 2 and 5 cost $8.00 each. The cost for grades 3, 6, and 7 are not now available.

1.6 *Availability*

At this writing, grades 3, 6, and 7 are not on the market. However, grades 1, 2, 4, and 5 are being sold by the University of Georgia. The address is the Anthropology Curriculum Project, the University of Georgia, Athens, Georgia.

1.7 *Performance data availability*

The project will make available upon request the results of tests they have performed in the use of these materials.

1.8 *Subject area and content*

This discipline-centered program is primarily on the discipline of anthropology. Concepts from other disciplines such as economics and sociology are seen in the materials but the thrust is clearly that of anthropology.

1.9 *Dominant characteristics of curriculum form*

The materials stress the importance and usefulness of exposition — putting the ideas (concepts) forward in a straight manner. There is no effort to utilize the many other curricular forms now popular, e.g., games and simulations.

2.0 RATIONALE AND OBJECTIVES

(Illustrations from *Comparative Political Systems,* Carnegie-Mellon University and Holt, Rinehart, and Winston)

Why did the author(s) develop the materials and what are the expected outcomes?

2.1 *Rationale*

Those responsible for the development of these materials assume that the individual can and should be equipped to learn independently. That is, the student must be able to grow intellectually in an independent fashion, continuing to grow after the formal educational process terminates.

Therefore, it follows that if the student is to be independent in his intellectual growth the curriculum should contribute to that independence. How? It can do so by enabling the student to analyze, make hypotheses about society, and evaluate those hypotheses. The student, with help from the materials, can learn to ask questions and gain information; he must learn to draw conclusions which give him a command of his environment. If learned in school, these processes will continue throughout the student's life.

The authors also state that if the student learns the concepts and the inquiry methods of the various social sciences, he is well on his way to becoming an independent thinker and contributor to the society; the curricular materials can contribute to the development of the student in this direction.

In summary, (1) the student needs to develop inquiry skills of the social sciences and learn the major concepts from the sciences. If he is able to do this (2) he will be a contributor to society. The curriculum materials can (3) contribute to the development of the student as noted above, getting him to develop the ability to ask questions, state hypotheses, and test those hypotheses.

2.2 *General objectives*

Students should know what the authors have identified as five major political science concepts. They are political leadership, decision-making, institutions, ideology, and citizenship. But knowing these concepts is not enough; the student must be able to comprehend inquiry skills which separate truth from falsehood. Further, the student must be able to apply what he has learned in one situation to others that he will be confronted with in the future. In order to grapple with these confrontations the student will need the ability to analyze a situation. The use of narrative helps to develop this skill. Although analysis is stressed in these materials, there are many references to helping the student express his own creations, his own syntheses. Finally, the student is challenged to make judgments concerning various forms of political systems.

2.3 *Specific objectives*

Students are to know that the Soviet constitution describes a political system in which political power is divided among the federated republics, to be able to differentiate fact from opinion, to be able to develop opinion from written materials, to be able to evaluate the reliability of sources of information, to be able to pose analytical questions, and to be able to draw generalizations by identifying the thread that connects specific items.

The affective objectives include the students' willingness to listen in class, to respond when called upon, to find the study of politics enjoyable, to value the right of political participation, and to value the civil rights and liberties of others.

2.4 *Behavioral objectives*

The authors have used specific objectives but not behavioral objectives as defined in this curriculum materials analysis system. The system asks, Does the author word his specific objectives in such a fashion that the verbs demonstrate student action-behavior that is clearly observable and/or measurable? Are specific guides to observation and measurement given? Are tests and/or specific tasks supplied? Some of these criteria are met but not all. The student objectives are specific in the form of detailed statements of student outcomes; however, the verbs do not indicate clearly observable actions nor are measurements suggested to the teacher which indicate the level of accomplishment required for satisfactory mastery of a task.

3.0 ANTECEDENT CONDITIONS

(Illustrations from *Manpower and Economic Education Opportunities in American Economic Life*, Darcy and Powell.)

What are the particular conditions for which the materials are designed, or under which they are most likely to be successful?

3.1 *Pupil characteristics*

These materials are appropriate for either boys or girls. They do not appear to have any ethnic orientation. They were developed for use in the eighth grade but have also been used with adults. It appears that they are useful with all social classes, including both urban and rural youth. Average or somewhat below-average cognitive and discussion skills are probably adequate.

3.2 *Teacher capabilities and requirements*

Teachers should have some background in economics but a major or minor in the subject is not necessary. The teacher should be flexible enough to let a class discussion proceed without excessive intervention.

3.3 *Community*

It is likely that most communities will support the use of these materials in the school system. This is because they do not appear to take sides over policy issues. To a great extent the materials are apolitical.

3.4 *School*

In order for the materials to be adapted and useful to a school system, that system's organization needs to have some degree of flexibility. Ordinary physical facilities are sufficient. A good library should be available to the student and to the teacher for resource materials. As with all innovative curriculum materials, there is need for administrative support — to purchase materials, support the teacher, make explanations to parents, and so on.

3.5 *Articulation*

The course should give the student a fuller understanding of the purposes and methods of the social sciences in general.

4.0 CONTENT

(Examples from two sets of materials are given here, to illustrate a sharp contrast in the way both cognitive and affective content may be handled. The first illustration is from an analysis of the Harvard Project Social Studies, showing a very loose and unstructured role for the cognitive content of the social sciences but a very clearly defined set of values. The second illustration is from an analysis of *ECON 12*, developed at San Jose State College, showing a very precise cognitive structure drawn from economics and a subdued, almost undefined, value content.)

What specific (content-related) changes are intended in the knowledge, attitudes, and behavior of the students?

(Illustrations from Harvard Project Social Studies)

4.1 *Cognitive structure*

The authors' view of the social science disciplines, as they discuss them apart from the materials, is that they are fragmented and of little value to the secondary student in their present conceptual form. They feel that there should be no commitment on the part of a curriculum developer to maintain the integrity of the individual disciplines of the social sciences. In the broadest sense, the authors regard all the social science disciplines as appropriate for inclusion in the curricular materials but not as identifiable subjects. They feel at ease picking and choosing content from all the subjects for the development of their materials.

Because of the broad view of human activity taken by the authors, no conceptual structure has been developed. However, they do have a procedural structure. They are primarily concerned with the analysis of public issues and they assert that this analysis can be done in a structured way.

Many concepts appear in the materials. Examples are the rule of law, equal protection under the law, consent, representation, due process, separation of powers, federalism, human dignity and public issues. However, these concepts are not structured in the same sense that other authors have organized the basic concepts of a discipline or disciplines. Students are expected to develop and apply generalizations — for example, that disciplined discussion requires developing sensitivity to what the other participants are saying, and that political decision-making requires balancing political obligations against public interest.

Six ways of structuring materials are suggested to the teacher, but they are not spelled out in detail. They include methods called "historical topic," "chronological-historical," and "current problems." The teachers' guide points out that these structures should not be confused with teaching strategies; they are ways to order materials but not ways to teach them.

The concepts of the materials cut across most of the disciplines. Concepts from sociology (status and role), political science (legitimation and authority), psychology (self-concept and identity), and so on, are found in many of the units.

The process of issue analysis is the heart of the project. It consists of the following elements: definition of issues, search for relevant facts, predicting the outcomes of alternative actions, and deciding on desirable policies. The development of analogies by the students is an important part of clarifying and supporting their positions.

4.2 *Affective content*

The authors espouse two basic values as the core of a liberal democratic society: human dignity and rational consent. They want children to know these values and feel them, which is accomplished by having children take a stand on these values and defend them in heated argument. The authors are convinced that these positions on dignity and consent are the most fundamental values of our society and must hold a central position in the social studies.

(Illustrations from *ECON 12*, San Jose State College)

4.1 *Cognitive structure*

An analysis of the teachers' guide and other materials shows that the authors have a clear view of the discipline of economics, which they use as the framework for the materials. They carefully define the cognitive structure of the subject matter, discuss the processes used by the economist, and indicate what are the outcomes of doing economics.

The conceptual structure of *ECON 12* provides a system of concepts or generalizations which define what it is that economists study. The authors state that the conceptual structure links the study of economics with the study of society in general. The structure is applied to problem solving. The conceptual structure is summarized from the final report of the project: Society establishes norms and values; it defines our wants; it sets forth the abstract justification for those wants in terms of the economic goals of freedom, justice, progress, stability, or security; it determines the modes of decision-making (a unique mixture of custom, authority, and market bargaining). The physical world establishes the physical constraints — the amount and

5

quality of human and physical resources. The economy allocates resources and organizes the activities which transform resources into want-satisfying goods and services. The economic system is the mechanism whereby wants and resources change and grow (or decline).

4.2 *Affective content*

The authors see economic analysis as value-free in the sense that it should be objective and rational. The materials do not take positions on policy questions except as the selection of readings gives a preference to some ideas over others that do not appear. For example, in Unit I, Lesson 6, the text states that the general welfare is related to the ability of the economy to promote the five goals of economic freedom, economic justice, economic progress, economic stability, and economic security. In Unit II, Lesson 16, there are many case studies of poverty in the U.S., indicating a concern for the welfare of segments of our society.

5.0 INSTRUCTIONAL THEORY AND TEACHING STRATEGIES

(Illustrations from *Development of Economic Materials for Secondary Schools*, Ohio State University)

What is the learning theory that is explicit or implicit in the materials? What are the teaching strategies, and are they logically related to the learning theory?

5.1 *Author's orientation*

Lovenstein, the developer of these materials, derives his instructional and learning theories from three sources: John Dewey, Alfred North Whitehead, and Gestalt psychology. He argues that the student needs to have abstractions rooted in reality (Dewey) and that the process of education is romantic (Whitehead). The discipline as a whole is a Gestalt which can be understood by the exfoliation of the concepts and analytical themes. The discovery of the ordering of the concepts from the discipline (in this case economics) can be accomplished by the ordering of experiences. The conclusions reached in one inquiry episode supply the means, the materials, and the procedure for carrying on further inquiry.

5.2 *Elements of instructional theory, and their uses in teaching strategies*

These materials are highly structured, in line with the author's view of the importance of the discipline. Student motivation is to come from step-by-step growth in understanding of his environment. Reinforcement is continually experienced in each learning situation through the unfolding nature of the materials. Reinforcement comes from rediscovering old concepts in new situations.

5.3 *Teaching forms, or modes, or transactions*

The textbook is the predominant resource employed in the course in addition to the teacher. The teacher must be able to ask relevant questions and "play" the structure-discovery game with the students. There is little emphasis on student-to-student interaction.

5.4 *Use of teaching forms*

Readings in the text are used to create interest in new problems. The problem situation stimulates concept discovery through inquiry and interest is maintained by the anticipation of what problems will next arise.

6.0 OVERALL JUDGMENTS

(Illustrations are from Contra Costa Social Studies Program, Grades 1-6.)

What can be gleaned from the foregoing analysis and from outside sources that will help in the formation of overall, evaluative judgments about the material?

6.1 *Sources of evaluative data*

It is possible to obtain information about the evaluation of this program from the Contra Costa County Department of Education, 75 Santa Barbara Road, Pleasant Hill, California. Other data can be sought by researching the work of the late Hilda Taba.

6.2 *Effects predicted by analysts and reported by observers*

The analysts predicted that the materials will affect the cognitive growth of the students markedly. The strategies are designed to take students to higher and higher levels of cognition. They are structured in a manner that will facilitate this development.

With respect to teachers, they will find the materials logically ordered, easy to use, and rewarding with respect to student growth and interest. The analysts recommend an inservice program prior to the adoption of these materials by a system.

6.3 *Comparisons*

These materials are consistent with the author's intentions; they follow the structure and strategies of the Taba philosophy about learning and teaching. In the opinion of the analysts, these materials compare favorably with other materials for the elementary social studies program.

The analysts felt that the program was an inspired piece of work. If properly used, it should be successful in most school districts.

6.4 *Recommended uses*

The materials are designed to be used throughout the school year in grades 1-8, but grades 7 and 8 are not yet published. The pattern suggested by the authors should not be altered. The program follows a well-structured spiral pattern and distortion of this pattern is likely to reduce its effectiveness.

EXPERIENCES WITH THE ANALYSIS SYSTEM

As indicated earlier, the CMAS has been utilized in a number of workshops, institutes, and other situations. The five case examples which are presented next illustrate the varied applications of the system that have been developed.

Baltimore County Public Schools

In one of their curriculum publications the Baltimore County Public School system described how they had used the Curriculum Materials Analysis System. The publication, *The Year of the Question,*[7] contains, among other things, a description of what happened when a group of teachers completed a number of analyses.

The authors state: *For two weeks fifteen workshop participants worked together reading project materials, becoming familiar with a particular tool (the curriculum materials analysis system described above) for analyzing those materials, editing their products, and considering ways of broadening the usefulness of curriculum analysis. The benefits of this experience for those who were involved are easy to catalogue:*

1. Everyone felt that he had learned something about the range of new content designs and teaching strategies that characterize the frontier programs in the new social studies.

2. Everyone was made more conscious of the components that go into curriculum building. No one escaped the feeling that perhaps he ought to reexamine his own choices of content and methods. . . .

3. Communication between elementary and secondary social studies people was improved. . . .

The report goes on to discuss the process of making curriculum materials analyses. The product is the analyses but the process also has a product.

The report lists six useful questions left with the teachers:

1. What is my rationale? Can I articulate it and support it?

2. How effectively do my objectives reflect the rationale? . . .

3. Have I adequately prepared myself for this teaching assignment? . . .

4. Is the content I stress fact-oriented only or is there a recognition of the desirability of building concepts?

5. Do I have an instructional theory? What is it? . . .

6. Have I tried to evaluate my methods? Are comparisons with other approaches ever seriously considered?[8]

These are profound questions that are difficult to answer, even for the most serious classroom teacher. It is the authors' assumption that if teachers earnestly grapple with these questions they will be more effective in the classroom.

Marin Social Studies Project

The Marin Social Studies Project, an ESEA Title III Project in Corte Madera, California, presents another case study of use of the Curriculum Materials Analysis System. The Project started in the summer of 1968 under the direction of G. Sidney Lester. The major objectives of the Project are to (1) field test and evaluate new social studies curricula, (2) construct a "New Social Studies" framework, K through 12, and (3) develop an in-service training package to accompany that framework.

These objectives point up a number of prerequisite functions, two of which are served by the CMAS. The first of these was to provide project research committees with a comprehensive, analytic conception of curriculum structure. These committees are composed of teachers and administrators from the Project's target area. Since the committees are to play a major role in developing the "New Social Studies" framework, a major portion of the Project's first year was spent updating their understanding of curriculum design. Training in the CMAS, which was provided by the Social Science Education Consortium, was found very useful in this regard. The second function served by the CMAS is that of providing the project with a system for analyzing new curriculum materials. A modified version of the CMAS is being used to generate information about new materials selected for field testing and evaluation.

One of the projected uses of the CMAS is that of using the categories as a base for developing a curriculum materials evaluation instrument. Work on the development of such a device is expected to begin in the summer of 1969.

Aptos Project

In Aptos, California, a group of junior high teachers under the leadership of their principal, Edwin Leach, organized a project which received ESEA Title III funds. The purpose of this project was to develop a social studies curriculum which was relevant and receptive to the needs of seventh and eighth grade students. The project evolved in four steps.

1. A Needs Committee was organized, comprised of teachers and assisted by consultants. Their responsibility to the total project was to find out:
   a. What the students of the Aptos Junior High School expressed as needs in the area of the social studies — both in the sense of "here and now" education and in the area of preparation for the future;
   b. What areas of social-personal attitudes and conduct were of most concern to the students;
   c. What kinds of teaching strategies and classroom environments were most desirable to the students;
   d. What the adults of the community thought the students needed in social studies;
   e. What the professional staff considered important for children to know from the social studies;
   f. What the sixth grader feared most about the transition from elementary school to junior high school.

   After obtaining this information, the team developed a rationale for a junior high social studies curriculum — an argument based upon "needs" — telling why previously ignored social science disciplines should be included, why the traditional sequence of content should be altered, and describing which classroom techniques and teaching strategies held the most promise for success with the Aptos Junior High students.
2. An Evaluation Committee was organized consisting of teachers from the same building and teachers from other schools in the district. They were assisted by consultants and the Social Science Education Consortium. Their task was to discover, develop, or adapt a method

for analyzing and evaluating social studies curriculum materials. This group spent a substantial amount of time acquiring skill in using the Curriculum Materials Analysis System and making analyses of many of the junior and senior high materials which they obtained from the major social studies projects.

3. After obtaining a clear picture of the needs of the students, the project moved into the third phase — making tentative decisions about the junior high curriculum structure and curriculum materials. A wide variety of materials from social studies projects were chosen in the group's efforts to match content and methodology with goals and needs.

   A first-year pilot program (1968-1969) resulted from the merger of all these efforts. This pilot study is currently drawing to a close.
4. The final step in the program is the testing of the total pilot curriculum and the obtaining of feedback on its effectiveness. This phase — still being undertaken — will indicate the degree of success of the entire pilot program. A second summer workshop, which will follow a re-administration of the refined needs assessment instruments, will result in a two-year sequential social studies program for implementation in 1969-1970. Continual re-assessment of needs and the refinement of curriculum structure and content to meet student needs are the keynotes of the Aptos program.

The CMAS has played a central role in the Aptos project. It was the tool used by the teachers to analyze, evaluate, and form their own judgments about the available new social studies materials; and it provided a framework for their thinking about the essential elements of curriculum content and materials.

Two members of the Aptos project team have modified the CMAS so that it is appropriate for analyses of mathematics textbooks. Twelve teachers from the local district were instructed in the use of this modified CMAS, and in two days there were 15 analyses made of supplemental math texts. These analyses were then sent to 18 district schools as a major aid in choosing supplemental math textbooks for district use in 1970-71.

Milwaukie, Oregon, Project

At another Title III Center, located near Portland, Oregon, a group of cooperating teachers under the guidance of Warren Adams, Director of the Center, and Ronald O. Smith, consultant, produced a series of competent analyses in a three-week summer workshop. The purposes of the workshop were to familiarize the teachers with new curriculum materials through the use of the CMAS and to give guidance to the teachers in the selection and use of new materials.

We have often been asked whether the CMAS is applicable to materials other than those from the "new social studies projects" for which it was designed — in particular, to materials other than social studies and other than curriculum project materials. The Milwaukie workshop supplied a partial answer to this question. Some of those teachers used the CMAS to analyze several popular American history texts, with what they and we considered very useful results.

A series of statements and questions to elaborate the meaning of the major headings and subheadings of the CMAS was developed at Milwaukie. The workshop reproduced the CMAS headings on the left-hand side of a double page, and put opposite the headings on the right-hand side the statements and questions composed by the workshop teachers.

Thematic Analysis

Still another variant in use of the CMAS has been developed in the 1968-69 Experienced Teacher Fellowship Program in Economic Education at the University of Colorado. The Fellows, in teams of two or three, undertook what we have called "thematic analyses" — the description and analysis of major themes suggested by the CMAS as exemplified by a number of curriculum projects. For example, one group of Fellows dealt with the theme "rationale and objectives." They explained what is meant by these terms in the CMAS, reviewed much of the literature relevant to these concepts, and gave a number of examples of how rationale and objectives are treated in a number of the major curriculum projects.

One can think of the curriculum projects and the CMAS as forming a two-dimensional matrix, as illustrated in Figure 13. Curriculum materials of the projects can be analyzed along the vertical dimension of the matrix; this is the type of analysis that has been discussed up to this point. They can also be analyzed horizontally, by selecting a particular theme and analyzing its treatment in each of a number of projects. The eight themes analyzed by the Experienced Teacher Fellows at the University of Colorado, and the relationship of these themes to the CMAS, are shown in Figure 13.

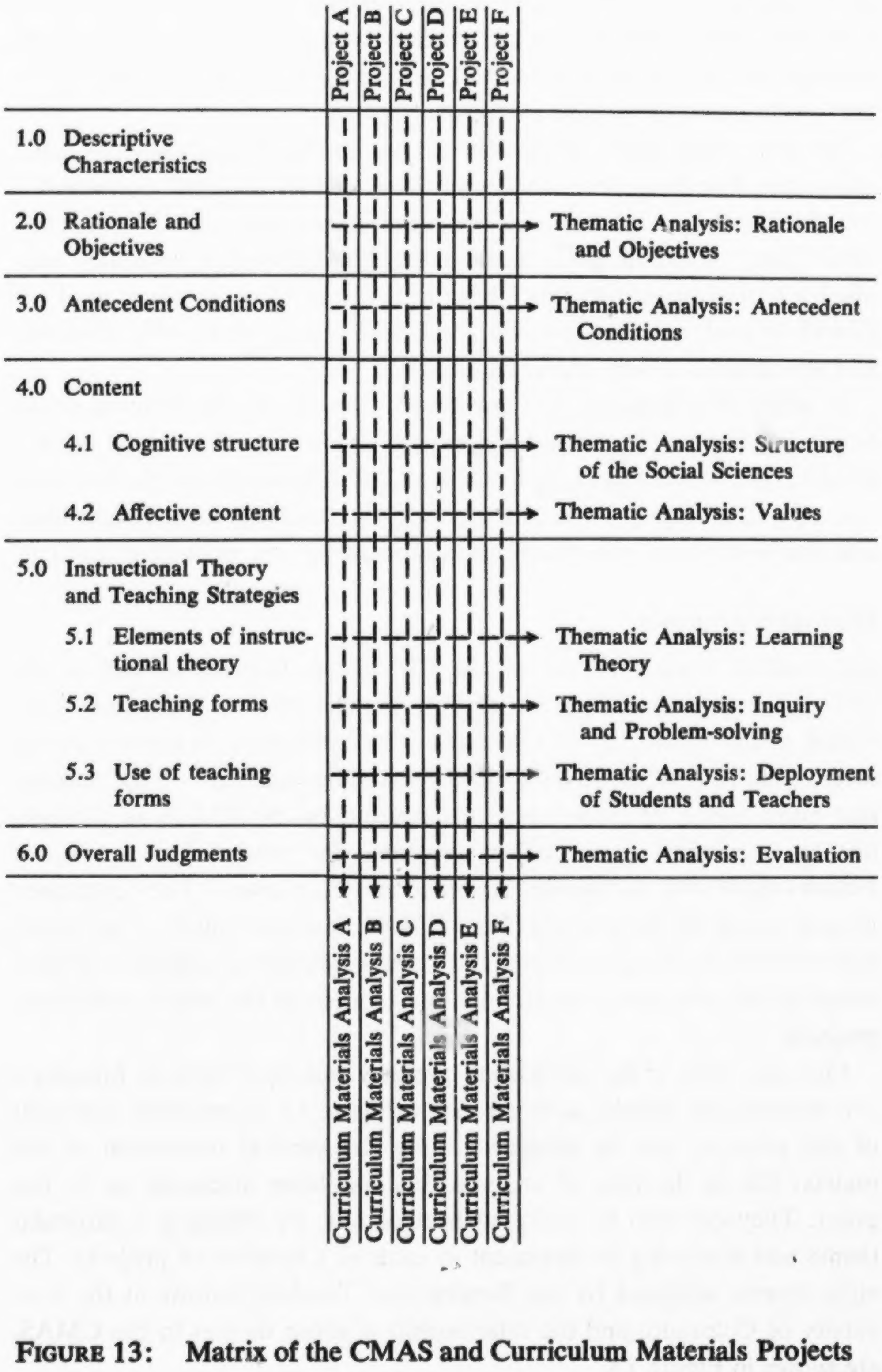
Project A
Project B
Project C
Project D
Project E
Project F
1.0 Descriptive Characteristics
2.0 Rationale and Objectives
Thematic Analysis: Rationale and Objectives
3.0 Antecedent Conditions
Thematic Analysis: Antecedent Conditions
4.0 Content
4.1 Cognitive structure
Thematic Analysis: Structure of the Social Sciences
4.2 Affective content
Thematic Analysis: Values
5.0 Instructional Theory and Teaching Strategies
5.1 Elements of instructional theory
Thematic Analysis: Learning Theory
5.2 Teaching forms
Thematic Analysis: Inquiry and Problem-solving
5.3 Use of teaching forms
Thematic Analysis: Deployment of Students and Teachers
6.0 Overall Judgments
Thematic Analysis: Evaluation
Curriculum Materials Analysis A
Curriculum Materials Analysis B
Curriculum Materials Analysis C
Curriculum Materials Analysis D
Curriculum Materials Analysis E
Curriculum Materials Analysis F

FIGURE 13: Matrix of the CMAS and Curriculum Materials Projects

TRANSACTIONS ANALYSIS

The question that started us thinking about description and analysis of materials several years ago has been answered affirmatively with the development of the CMAS. There *is* a feasible way to describe, summarize, annotate, and analyze new social science materials so that each user does not have to start from scratch to become acquainted with materials. With a modest amount of time devoted to instruction in the CMAS, teachers can work together to analyze new curriculum materials, compare their findings with relevant criteria, select appropriate materials, and make good use of the materials in their classrooms.

While the job of refining, polishing, and teaching the CMAS continues, we have begun to explore still other analytical uses for this tool. Having analyzed the materials selected for classroom use, one may wish to consider the relationship of materials to the other components of education (see Figure 2). It is possible to focus on materials as an input (Figure 5), to analyze the dynamic role of materials in transactions (Figures 8 and 9), and hopefully to modify, temper, and control dimensions of materials to bring about changes in transactions and eventually changes in outcomes (Figures 10, 11, and 12). It is to the exciting potentialities of transactions analysis that we turn our attention in this section of the chapter.

The Challenge of Analysis

Observing and analyzing what transpires in a 50-minute class is not a simple task. Each student has his own experiences during the period: participating in classroom events; thinking about his personal problems, his plans for the afternoon, his unwritten report for another class, and possibly about the subject of the class in which he is sitting; and feeling happy, sad, interested, or bored with events passing through his mind. The teacher has his own activities and experiences: talking, demonstrating, listening, reprimanding, and arranging; and his own feelings of frustration, success, irritation, anticipation, and boredom. In addition, there are innumerable interactions going on: between students, between teacher and students, between students and materials, between students and the classroom setting (noises, the scene from the classroom window, messages from the principal's office, and so on).

The casual classroom visitor is likely to observe but a small percentage of the events that occur, and these events may not be the most important ones. Most teachers are not much better off. They are uncertain about what should be looked at and unfamiliar with observation and analysis instruments. What is required for serious classroom observation and analysis are (1) some clear criteria about what should and what should not be observed (one cannot observe everything); these ideas would ideally be expressed in the form of (2) *hypotheses* about what affects what in the classroom; these decisions and hypotheses should determine the (3) methods and *instruments* by which observations are made.

At least 50 methods have been devised for observing and/or analyzing classroom transactions. The 26 methods described so well in *Mirrors for Behavior*[9] give a clear idea of the nature of these procedures. A large number of them are modifications of Flanders' Interaction Analysis.[10]

In most of the observation methods, major attention is directed to the actions of the teacher. This emphasis reflects the great importance of the teacher in the educational process, but it has been carried so far that it has produced two harmful results. First, the heavy emphasis placed on the teacher by most of the observation instruments may lead one to ignore the other important elements in the educational process — students, materials, and situation. Second, it tends to reinforce the image of the teacher as the ever-present, ever-dominating element in the classroom. Wonderful things may happen in the classroom when the teacher is apparently doing nothing, or is out of the classroom; but most of the observation instruments fall apart if the teacher is not front-and-center.

When, for example, we want to know specifically how far along the students are in acquiring and using particular knowledge, the most sophisticated analysis of teacher behavior will not tell us much. What is called for in that case is an instrument that measures or describes the cognitive level of response of the student. There are several that will do this — among them Arno Bellack's Language of the Classroom,[11] and the Modified Category System[12] developed at Temple University to add a cognitive dimension to the Flanders scale. The Experienced Teachers in the Fellowship Program at the University of Colorado used the Bloom taxonomy as a basis for an instrument to look at the nature and level of cognitive student responses.

The commonly-used teacher-centered instruments should not be discarded, but should be supplemented by other instruments that give a broader view of what is going on in the classroom. This was the course followed by the Fellows at the University of Colorado whose experiences are reported later in this section. These teachers used a number of existing instruments, designed some instruments of their own, and supplemented these observations with data taken from their narrative logs of classroom experience.

Focus on Materials

Our particular interest in transactions analysis has centered on the role of materials in the classroom, following our focus on materials as an input to the educational process. It probably needs to be said once more that a particular interest in materials does not mean ignoring the student, the teacher, or the situation. Such interest does make it possible to give special attention to that one input and to the dimensions of transactions most directly affected by it. The range of things to look at is narrowed, and the materials define to some extent what is to be looked at and what instruments should be used in making the observations.

Materials, as we are talking about them now and throughout this chapter, are not synonymous with subject matter. Subject matter is inert and abstract. It needs a vehicle for transfer and the vehicle is materials. Materials are potentially alive, the product of relationships purposely made. It is these relationships, spelled out or implicit, that can be examined, held constant, or changed.

Materials analysis looks particularly at internal and passive relationships. Transactions analysis with a materials focus actively examines relationships between the cognitive content of the materials and the cognitive level of response of the students; and between the affective content of the materials and the affective level of response of the students. It directs attention to the quantity and kind of student-student and of teacher-student exchanges that appear to be elicited by the materials. The teaching strategies and techniques explicit or implicit in the materials also provide a dimension for observing and analyzing what is happening in the classroom and why, and what the outcomes might be.

Materials, Transactions, and Decisions

The availability of instruments to analyze both materials and classroom transactions related to materials should enable curriculum decision-makers to investigate rather thoroughly some of the relationships between materials, on the one hand, and teacher, student, situation, and outcomes on the other. It should, specifically, facilitate efforts (1) to more sensitively control the use and effects of the materials; (2) to better predict and evaluate outcomes of the transactions in relation to materials; (3) to analyze and account for discrepancies between predicted "shadow" transactions and outcomes and the real things; and (4) to justify judgments made in the selection of curriculum materials.

Some possibilities for decision-making using the CMAS and various observation systems together are brought out in some unpublished reports recently written by teachers in the Experienced Teacher Fellowship Program in Economic Education at the University of Colorado. These Fellows used packaged materials from the "new" social studies in classes of the Boulder Valley Schools.

Information was gathered from a number of sources. The teachers relied on answers from questions raised by the Curriculum Materials Analysis System to better understand the nature and intent of their particular curriculum materials. They used instruments like the Flanders Interaction Analysis System, the Parsons Guided Self-Analysis System for Improvement of Teaching,[13] and Bellack's Language of the Classroom when these could help them explore a certain dimension of transactions. They also devised their own *ad hoc* observation instruments to suit particular purposes; and they pulled information from daily and weekly teaching logs to analyze and clarify what happened in the classroom as a result of using a certain set of curriculum project materials.

Earlier in the chapter the question was raised whether materials could be analyzed "in a vacuum," and it was argued that it could be done profitably as long as the analyst always had in mind the presumed or "shadow" transactions and outcomes. The Fellowship teachers had done such "armchair" analysis during the summer of 1968; during the fall semester they had the opportunity to check their predictions when the materials were in actual use in the classrooms. Comparisons of comments from analyses made *in vacuo* with those from analyses made *in actuo* reveal the complementary nature of the two subsystems, materials analysis and transactions analysis.

Fenton From the Yacht Club and Fenton From the Bridge

Three teacher-analysts performed an armchair analysis of the Carnegie-Mellon course *Comparative Political Systems* which was produced under the direction of Edwin Fenton. In answering questions posed by Section

4.2 of the CMAS concerning the affective content of the materials, they wrote:

> *The authors make little reference to affective content. They state that the curriculum was written to help each student develop to the limit of his ability into an independent thinker and a responsible citizen of a democratic society.*

At this time, before they taught the materials but after they had analyzed them and had vicariously lived through transactions and outcomes, the teachers accepted the author's view that it is to cognitive ends through essentially cognitive means that the materials are directed.

When the CMAS was applied in transactions analysis the pragmatic criteria of experience were substituted for the questions used in armchair analysis. The analysts had this to say about the affective content of the materials:

> *The materials do not set out to teach values at all. . . . The type of material presented, however, makes inevitable a positive value formation with regard to America and a negative formation with regard to Russia.*

No particular doubts about a teacher's ability to handle the course had been raised by these teachers during the armchair analysis of *Comparative Political Systems* in answer to the question from Antecedent Conditions, Section 3.3 of the CMAS. "Will the teachers be able to handle the material without additional training?" However, after having observed themselves teach the materials for a full semester, the three teacher-analysts changed their minds. They noted:

> *The teacher needs to evoke and foster student participation in discussion. Sensitivity to the students' needs and feelings is something that will not easily be gained. . . . The teacher must be a discussion leader . . . and must encourage student participation and excellence.*

In addition to his skill as discussion leader, the successful teacher of *Comparative Political Systems* needs . . . *a generalist background, one that is constantly being replenished and kept up to date through current social science reading.*

The comparison of results of armchair analysis and classroom use of the CMAS brought out differences between the ideal and the real — that which was hoped for from the materials and that which came to pass in transactions. In this particular example the differences were pronounced. Materials analysis and transaction analysis, worked separately and then together, gave the teachers data to estimate what the outcomes of teacher-student-materials interactions were likely to be with this particular set of materials in situations like theirs. Their recommendations for modification and use of *Comparative Political Systems* were based on data considerably more specific than the top-of-the-head assessments that often underlie judgments about curriculum materials.

Analysis with Joint Use of the CMAS and Flanders Interaction Analysis System

A two-person Fellowship team analyzed the fifth-grade materials of the Greater Cleveland Social Studies Project, preparatory to teaching it in the fall. The material deals with major world cultures and their differences.

Relying partly on the stated rationale and objectives of the authors and partly on their own analysis of the materials, the teacher-analysts anticipated high affective involvement of the students. The authors indicated that the material would "stimulate curiosity and a thoughtful attitude of mind," and would put down a "foundation of values, interest, and sensitivity." They urged teachers to try to understand "the inner uncertainties of the child, to get behind the facade of children's external behavior to find what they really think." The authors also indicated that either lecture or discussion strategies were suitable for the material; the teachers chose to rely mainly on discussion methods.

Results during the first few weeks in the classroom were disappointing. Participation of the children was at a very modest level and occurred primarily at the lowest cognitive levels of memory and comprehension. Interest and affective involvement were very low.

The preliminary diagnosis of the teachers was (1) that the Greater Cleveland materials are so difficult that fifth graders have little to say about them in a discussion, and (2) that fifth graders normally do not express their feelings in an open manner. However, they decided to push their investigation further, primarily with the use of the Flanders Interaction Analysis System. This investigation led to a substantial modification of the early diagnosis.

Tabulations were made on 13 lessons taught by each of the teachers. They indicated that the teachers talked about 60 per cent of the time, this in spite of the fact that both were trying consciously to be as indirect as possible. The Flanders Content Cross percentage was high —

65 per cent for one teacher, 50 per cent for the other — reflecting many statements by the teacher consisting of lecture, statement of opinion, ideas and information, and questions about information and content that he has presented. The tabulation showed an almost complete absence of the teachers' accepting of students' feelings.

The prescription growing out of this analysis was that class discussions should be less teacher-centered and that the teachers should be more sensitive to, and accepting of, expressions of both thoughts and feelings on the part of the students. The ensuing modifications of classroom procedures by the two teachers led to a much more successful experience with the Greater Cleveland materials.

On the Significance of Duck Calls in the New Social Studies

It was not unusual in the classes conducted by the Experienced Teacher Fellows to find a difference between the claims and hopes of the authors of materials and the results of observation and analysis of classroom transactions. Most of the new social studies materials require active student participation and skilled use by the teacher of techniques such as inquiry, discovery, and simulation. A common observation of the classroom transactions is that there is little student involvement and too much teacher talk. Reconciliation between ideal and reality is a delicate task.

One XTF team using the Darcy and Powell *Manpower Economics* curriculum at the twelfth grade level found that their project, with its emphasis on active involvement by students, was stalled. The awareness of the "significant forces at work in our economic and social world" was not developing according to plan. Instead, team logs reported that a general student apathy was manifest in the class. "We found that the students would not respond to anything that we tried in class." Of particular concern to the teachers was a large group of from seven to eleven members who had "superior resistance to involvement." These students were "masters of the disruption tactic and frequently resorted to just making noises. Their creativity in this area was almost endless, ranging from duck noises to simple gutteral sounds."

Data provided by the instrument originally used for classroom analysis did not provide the information that now became crucial — the degree and kind of involvement for each individual student. The teachers created their own observation instrument, based on Krathwohl's taxonomy of affective behavior, and used it to analyze individual student behavior. The activities of each student for a number of class periods were classified on the following seven-point scale:

Responding with emotional commitment	5
Showing a clear desire to respond	4
Acquiescent attitude in discussion	3
Listening but not talking	2
Barely listening	1
Not listening	0
Doing something unrelated to class	—1

The analysis of the nature and degree of each student's engagement with the tasks posed in class gave the teacher some new ideas about how to deal with individual students. They discovered that the larger the number of discussants and the higher the level of their constant involvement in the discussion, the higher became the level of attention of the observers. The objective of the teachers was to get up enough sustained interest to engage most of the class at a discussant level and to nurture that participation so that the content of the materials might take on some meaning.

The teachers predicted that students would show significant gain in understanding of the course content if they participated in the discussion. A statistical analysis of pre- and post-test results for the class as a whole showed "no significant difference," but for smaller groups a significant correlation between transactions and outcomes *did* appear. Members of the disruptive "duck call" group, who had scores of — 1 to +1 on the scale described above and who consistently avoided involvement in class discussion, made *lower* scores on the post-test than on the pre-test. Students who had participated in discussions scored significantly higher on the post-test.

It appears that students who spend their time making duck calls in class learn as little from the new social studies as they did from the old social studies.

OUTCOMES

We shall give relatively little space to the analysis of outcomes. This is a subject that has received much attention from others and our major focus in this chapter has been on the analysis of materials. Nevertheless, we do wish to make some comments about outcomes, to round out the broad setting of our discussion of materials.

Accepted Measures of Outcomes

The most commonly-used public criteria for judging student performance in the social studies are published tests. Sources of these tests have been identified and criteria for their selection and use have been set out by Barbara Peace in the 35th (1965) Yearbook[14] of the NCSS. Over 100 published tests in the social studies are in use in the United States, most of them tests of cognitive achievement. The 1965 Yearbook annotates over 40 of them.

Having such tests constructed and tested by experts and made available for general use represents an important contribution to our understanding of the educational process. In other areas of observation, analysis, and research on education there is too little sharing of insights and results. But common knowledge of the standard tests and the ease of applying them may also lead to excessive reliance upon them, at the expense of a much broader analytical view of the whole educational process. The knowledge gained from such tests is usually gross, in the sense that it does not relate particular outcomes to specific dimensions of inputs or transactions. Test results alone may give little guidance to the decision-maker who must constantly be concerned with modifying the inputs.

The standard tests also have some general biases that should be noted by decision-makers. They have a tendency to measure what is easily measured rather than what is most significant, which means, in practice, that they put much more stress on the lower cognitive levels of achievement than on the higher. There is also a tendency to overstress cognitive outcomes, at the expense of the affective.

A Broader View of Outcomes

At our present primitive stage of understanding the educational process, there is some danger that we will spend too much time honing and validating tests of a limited range of outcomes. We should turn in the other direction; divergent thinking about outcome measurements and their uses should be the order of the day.

With respect to the outcomes most commonly measured, cognitive achievement and affective changes, more attention should be given to the measures of affective change and to the higher cognitive levels.

With respect to the types of instruments and methods used to gather data, we are too much bound by paper-and-pencil tests. We need more tests that require students to do things rather than tell things. And we need more methods of observation — more use of class logs and interviews with students, for example.

With respect to the kinds of outputs analyzed, we need to consider more than the impact on students. The effects of the educational process on the teacher, the school, and the community are also important. If one thinks of the total cybernetic process pictured earlier in this chapter, he can also consider the impact on materials as part of the outcomes: what happens during the classroom process to generate messages about the materials to publishers and curriculum developers — messages which, hopefully, will result in the production of more effective teaching materials?

In the subsection immediately following, an episode is presented which illustrates a fruitful use of a standard test in the hands of classroom teachers. The teachers wished to test in the classroom a problem raised with respect to probable outcomes in the course of their analysis of a set of materials.

A Problem of Reading Levels

A team of three teachers used the second-grade materials from the University of Georgia Anthropology Project in their third-grade class. They had concluded on the basis of an armchair materials analysis that the reading level was too difficult for their class and that a student's performance in the program would be contingent on his ability to read. In other circumstances this judgment might have precluded the use of the new material.

In this case, after the first semester of classroom use of the materials, the teachers checked students' overall comprehension scores on the Metropolitan Reading test, Form 2B, with pre- and post-test scores from the curriculum project. The students showed an average gain of 21.6 percentage points between the pre- and post-test; those in the lowest reading quartile gaining 20.2; the second quartile, 23.2; third quartile, 22.6; and the highest quartile, 24 points. It would be difficult to support the earlier conclusion that reading level would be a determining factor in the child's ability to progress and to develop the understanding required to show a gain on the post-test. The real outcome provided feedback confirming, at least for a representative class in a particular school district, the assumptions of the authors of the project.

SUMMARY AND CONCLUSION

A comprehensive model of the educational process has been presented in this chapter. The model is a cybernetic system, which stresses the wholeness of the process as well as the major components by which we set goals, assess outcomes, and act to change the outcomes.

Within this model, we have focused on the role of materials as an input to the educational process. A particular method of analyzing materials — the Curriculum Materials Analysis System — was presented in detail, along with illustrations of a variety of ways in which it has been used.

Suggestions have been made for broadening our analyses of the components of the educational process and of their interrelationships. It was argued that, for various reasons of history and convenience, the teacher has received most of the attention in the analysis of classroom transactions and that materials have received inadequate attention both as inputs and as elements affecting transactions. Using the components of the system developed at the beginning of the chapter, we can summarize our views about which elements of the educational process (student, teacher, materials, situation) have received most attention and which least, at each of the various stages of the process (inputs, transactions, outcomes).

	Inputs	*Transactions*	*Outcomes*
Most Investigated	Student Teacher	Teacher	Student
Most Neglected	Materials Situation	Student Materials Situation	Teacher Materials Situation

The judgments represented in the table above may be too categorical. There has been much concern in recent years, for example, with some aspects of the school "situation" — for example, with pupil deployment (team teaching, modular scheduling) and with the physical school setting (open space, movable walls, resource centers). But without defending the particular categorization made, we hold to the view that some aspects and relationships of the total educational process have been neglected, and we have made our own contribution toward rectifying the imbalance with respect to the role of curriculum materials.

FOOTNOTES

[1] Morrissett, Irving, and Stevens, W. Williams, Jr. "Curriculum Analysis." *Social Education* 31: 483-7; No. 6, October 1967.

[2] Scriven, Michael. "An Introduction to Meta-Evaluation." *Educational Product Report* (formerly EPIE Forum) 2: 36-8; No. 5, February 1969.

[3] Simon, Anita, and Boyer, E. Gil, editors. *Mirrors for Behavior.* 6 volumes. Philadelphia: Research for Better Schools, 1967.

[4] Morrissett and Stevens, *op. cit.*

[5] Stevens, W. Williams, Jr., and Morrissett, Irving. "A System for Analyzing Social Science Curricula." *EPIE Forum* 1: 12-15; Nos. 4 and 5, December 1967 and January 1968.

[6] Stevens, W. Williams, Jr., and Fetsko, William. "A Curriculum Analysis System." *Social Science Education Consortium Newsletter;* No. 4, February 1968.

[7] Sartorius, William S., and others. *The Year of the Question.* Baltimore: Baltimore County Public Schools, 1968. 98 pp.

[8] *Ibid.*

[9] See Volume I, *Mirrors for Behavior* for a short description of the 26 methods described in more detail in the subsequent volumes.

[10] See Volume II, *Mirrors for Behavior* for description of the Flanders instrument.

[11] Bellack, Arno A.; Kliebard, Herbert M.; Hyman, Ronald T.; and Smith, Frank L., Jr. *The Language of the Classroom.* New York: Teachers College Press, 1966. 274 pp. Also appears as Volume VI, *Mirrors for Behavior.*

[12] See Volume II, *Mirrors for Behavior.*

[13] Parsons, Theodore. *Guided Self-Analysis System for Improvement of Teaching.* Berkeley: University of California, 1967. (mimeo.)

[14] Peace, Barbara A. "Published Tests in the Social Studies" and "Bibliography of Social Studies Tests." *Evaluation in Social Studies.* Thirty-Fifth Yearbook. Washington, D. C.: National Council for the Social Studies, a department of the National Education Association, 1965. pp. 218-247.

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CHAPTER NINE

Stanley P. Wronski

Implementing Change In Social Studies Programs: Basic Considerations

Schools do not exist in a social vacuum. They are a part of the total society, and the forces acting upon and within the society inevitably impinge upon the schools. It is a truism that all the major social institutions in any given society interact with each other. It should not be surprising that the educational system conforms to this general rule. Nor is it surprising that the dual and ostensibly incompatible elements of stability and change permeate all society. What *is* surprising is that the dynamics, process, and theory of *social change in general* have received such scant attention by those concerned with changing one institution within the total system. One cannot understand the structure or function of a complex machine by observing only one of its cogs.

The need for studying *social* change as a necessary condition of knowledge about *educational* change can perhaps be illustrated further by analogy. Until fairly recently in social studies teaching, the predominant pattern was for the teacher to transmit to the learner in rather isolated packages some selected segments of the outputs of social scientists. Through a proper selection of ingredients, encapsulated in palatable packages and administered at a predetermined rate, the recipient was assumed to acquire enough inputs to enable him to know something about history, the social sciences, and society. But somehow or other this treatment was not always effective. So one of the added ingredients of the new social studies was an understanding of *how* the social scientist generates these outputs — his mode of inquiry. Presumably some knowledge of this fountainhead of information will enable the student to understand better the way in which the various discrete elements fit together and form part of the whole that we call society. A similar shift of emphasis has begun to influence our thinking about educational change. In the past our concern with educational change has been manifested largely through piecemeal curriculum revisions, added courses, modified organization of subject matter, and the like. We even speak of "tactics of curriculum change" in roughly the same manner that the classroom teacher speaks of "techniques or devices of instruction." For the most part curriculum change agents have tended to concentrate their sights and their efforts within one cog of the total social machine. What is desparately needed is a more inclusive view of educational change which considers it within the context of the larger process of social change.

Lest it be assumed that this broader viewpoint would provide a surefire guarantee of desired educational change, it should be pointed out quickly that an understanding of the dynamics of social change — as desirable and necessary as it may be — does not insure that educational change will ensue. Such an in-depth study may even convince the intended innovator that his proposed educational change will almost certainly *not* occur. But if it accomplishes this seemingly negative goal, it still will have served a useful purpose. It deters the innovator from going down blind alleys.

Looked at more positively, a study of the process and problems associated with social change should enable the educational innovator to gain some insights into the following: In what ways are changes generated in a social system? What forms of social organization facilitate or impede change? What kinds of personal factors dispose one to accept or reject change? How can these and other dynamics of social change be depicted in model form and used heuristically?

The remaining part of this chapter addresses itself to three related tasks. The first is to indicate the present status of our knowledge about social change in general. The second part narrows this overarching approach and deals with change within the educational system. Finally, an attempt is made to identify those elements arising out of the above two analyses that have particular relevance for implementing curriculum change in the social studies. Throughout all three treatments an occasional comparative analysis involving different cultures and societies will also be introduced.[1]

THE NATURE OF SOCIAL CHANGE

In visiting or reading about some remote hamlet, island, or tribe we often use or come across the phrase, "It is a place where time stands still." We use the expression in its figurative, not literal sense. We know, of course, that time doesn't really stand still; it just seems that way. Because a place manifests no overt indications of change we cannot logically conclude that there has been no lapse of time in this setting. Or can we? We reach such a "logical" conclusion *only* if we assume that time is a constant and is independent of the setting in which it transpires. Admittedly, this is the most commonly accepted concept of time. But it is not the only logically permissible concept. Richard Schlegel, a noted physicist and philosopher of science argues for a different conception of time as it relates to change.

We might ask, Does the world change because time moves on, or does time move on because there is change? The answer must be that time arises from changes that occur. To answer otherwise would be to assume that there is a time entity that is prior to the events of the natural world. We are here assuming contrariwise, that time is an aspect of the natural world, co-existent with that world but not prior to it.[2]

Theories of Change

It is not within the scope of this chapter to elaborate on Schlegel's position nor even to attempt a critique of it. Regardless of the validity of his argument it does illustrate the fundamental importance attached to the concept of change — by physical as well as social scientists. It is little wonder that the idea of social change has attracted the attention of seminal thinkers in the social sciences. Herbert Spencer, for example, postulated that human societies progress from the inorganic, to the organic, to the super-organic thus displaying some of the diversity of plant and animal species. Arnold Toynbee has suggested a teleological pattern by which civilizations move from an initial developmental period, through an era of vigor and influence, to eventual decline. Both of these schemes are illustrative of one type of theory of social change which has characterized the writing of some social historians, philosophers, and early social scientists. This is the attempt to identify so-called "universal laws" governing the growth and development of man as a social being. Auguste Comte, the "father of sociology" — and, some would say, of modern social science — came up with his own universal "law of the three stages." According to Comte, historical change moves cumulatively through the successive stages of theological, metaphysical, and positivist. Not all societies are assumed to move at the same rate through these stages.

A second major theory of social change leans heavily on the Darwinian notion of biological evolution. Often referred to as Social Darwinism this revolutionary theory stresses the directionability of change. It is not only seen as moving in the direction of an increasingly better society but also as taking on increasing complexity and specialization. Spencer also contributed to the development of this theory as did William Graham Sumner who stressed the cultural relativism ("the mores can make anything right") aspect of the theory. Even the dialectical materialism of Karl Marx with the successive stages of thesis→ antithesis→ synthesis→ new thesis can be construed as a lineal descendant of the evolutionary theory.

The third and perhaps most prevalent contemporary theory of social change is that of functionalism. Martindale has summarized "the functionalistic point of view" in the following way:

> *In the period since World War II, as Western society readjusted to the radical change in* milieu *that followed, with the attempt to return to something that looked like "normalcy," but in a permanently transformed world, the essential unity of the social sciences has been revealed in the flooding of the functionalistic point of view across the boundaries of the special disciplines. This point of view has had both theoretical and methodological dimensions. Theoretically, it consists in the analysis of social and cultural life from the standpoint of the primacy of wholes or systems. Epistemologically, it involves analysis of social events by methods thought peculiarly adapted to the integration of social events into systems.*[3]

The essence of the functionalist theory is that there is within each society a mechanism for self-equilibrium. Society is a seamless web.

Customs, patterns of behavior, and social organization exist because they serve a useful function in a given society. The introduction of a social change which is dysfunctional within the system is likely to result in rejection in somewhat the same way that a person's body may reject a newly transplanted heart.

The widespread influence of functionalism in contemporary social science should not be construed as unanimous endorsement. It has its critics. For example, Jarvie has seriously challenged the logical foundations of functionalism and argues that on the basis of logical deficiencies alone the concept has built-in limits.[4] Similarly, Wilbert Moore, in one of his more free-wheeling articles, has this blistering comment to make:

> *The kind of eclectic, almost scandalmongering, picking-up of odd practices for contrast with our own at the hands of the earlier relativists came to be exaggerated into a kind of rampant functionalism: everything must be seen in its immediate context. The cautionary qualification, "It all depends," had been taken out of the southern tier of counties in Iowa or the patients in a private mental hospital and spread across Oceania and subSaharan Africa, and had lost none of its stultifying effect by overseas transportation.*[5]

Partly in response to these criticisms of functionalism, yet another theory of social change has emerged. It views society as a "tension-management system." It emphasizes intrinsic sources of change within the social system and views change as possibly tension-*producing* — for example, the polarization between school administrators and militant teachers after a contract has been negotiated — as well as possibly tension-*reducing* — for example, a technical training program for residents of an urban ghetto. As one of the leading advocates of this theory, Moore points out,

> *It would be improper, however, to view the tension-management conception of society as frontally opposed to the functional-equilibrium conception, or as virtuous as opposed to evil. Rather it appears proper to view the notion of tension-management as an amendment to the commonest form of functional analysis. If users of functional analysis tend to neglect conflict and change, users of tension analysis may tend to neglect consensus and continuity.*[6]

Direction and Rate of Change

A broadened perspective on the concepts of direction and rate of social change may sometimes be obtained by viewing them in a different cultural setting. Consider the following case: In 1966 the government of Thailand released a report on manpower needs in the nation and the impact these needs would have on the school system. The manpower needs and the corresponding educational changes — in terms of new school plants, equipment, teachers' salaries, increased enrollments, revised curricula, and the like — were projected to 1986. In looking at enrollment projections alone, the writers of the report possibly could have used at least three baselines from which to build the projection: (1) enrollment that would be based on population growth, (2) enrollment that would be designed to meet the nation's employment needs as indicated by the manpower survey, and (3) enrollment based on a linear extrapolation of past enrollment trends. The baseline ultimately selected, although a compromise of all three, was most similar to the one based on past trends.[7] Why? Among other things the Thais, especially those Thais who were in responsible governmental positions, were accustomed to viewing change — social, economic, and educational — as an orderly progression at a relatively fixed rate. The typical government official in preparing his budget request for the forthcoming year would almost autocatically add ten percent to the previous year's budget. He saw the *direction* of change as positive and the *rate* as rectilinear.

Knowledge of the rate of change is essential to understanding the full impact of any significant social change. The above example of a rectilinear rate of change illustrates some of the built-in limitations of a program geared to such a rate. It is not likely to be amenable, for example, to a "crash program" emphasis — with all the mixed blessings that such a program connotes. Nor can the above example be shrugged off as appropriate only to a slow and deliberate Asian culture. Picture in your mind the response of a typical school board member if, after acceding to an annual five per cent pay increment for teachers in his district, he is suddenly confronted with a salary demand representing an increase of 25 or 50 per cent. His conception of what *ought* to be a "normal" rate of salary change may be a powerful deterrent to the demanded pay increase, however, justifiable the increase may be on other grounds.

Much of the social change in our society is not rectilinear but exponential; that is, the rate of change itself increases over time. The most common-place example, abundantly found in the literature, is the rate of accumulation of knowledge. Although no one figure can be taken as unmistakably valid, there seems to be general consensus that the sum total of our storehouse of knowledge doubles approximately every fifteen years. Whether this or some other figure is taken as representing the real situation with regard to the knowledge explosion, it appears reasonable to conclude that the rate of this accumulation approximates an exponential curve.

Another example of an exponential rate of change is found in the curve depicting world population growth. This is a commonly cited illustration, but it should be pointed out that the long term overall picture may conceal within it certain short term trends that run counter to it. Birth rates in the United States, for example, fell appreciably in the 1960's over those in the 1950's. Similarly, in the case of cyclical change there may be a trend over the short run that runs counter to the long run trend. The recession phase of a business cycle, for example, may point in the direction of diminishing rate of economic growth over a relatively short period of time ranging from a few to several months, but all of this may take place within a long term period of national economic growth extending for 50 or more years.

Carrying the analysis of rate and especially direction of social change to its logical limits, one is inevitably led to a consideration of the question, What about the future? This is a legitimate area of inquiry for the student of social change. The concern is not so much with a crystal ball view of the future based on hunches, intuition, or even speculation. Rather it is an attempt to identify those flywheel-like characteristics of contemporary society that, having been set in motion, will tend to exert their force for an appreciable time in the future. In an article in the recently published and monumental *International Encyclopedia of the Social Sciences,* Moore has identified four components of the present that enable us to make some estimate of the future on the basis of rational analysis rather than supernatural inspiration.[8] Briefly, they are the elements of (1) *persistency*—for example, the likelihood that the United States will continue with some sort of politically viable and probably democratic form of government; (2) *continuation of orderly trends*—for example, rising rates of school enrollments; (3) *recapitulated experience*—that is, the partial repetition of historical trends such as the "out" political party gaining seats in Congress during non-presidential election years; and (4) *planning*—the deliberate effort to effect change in consciously determined directions.

The last-named element, planning, deserves additional comment. Historically, the American people have shown no great enthusiasm for the idea of planning — social, economic, or educational. In the minds of many people it conjures up spectors of social engineers, visionary meddlers, or government bureaucrats who encroach upon individual freedom. This negative connotation held by a substantial part of the citizenry no doubt accounts in part for the fact that the national government has no planning agency comparable to that found in many other highly industrialized countries of the world and in most of the developing nations. Zambia has its Central Planning Agency and Thailand has its National Economic Development Board; both are specifically charged with the responsibility for evolving long range *social and educational* as well as economic plans. Similarly, the Organization for Economic Cooperation and Development (OECD) is concerned with planning among member European and Near East countries. Also the United Nations has an educational planning division within one of its Specialized Agencies, UNESCO. Most of the work of the UNESCO based office and its affiliate, the International Institute for Educational Planning, is with the developing nations. Yet many of their status studies of educational systems, their research designs, and their models for educational data collection and retrieval are far more sophisticated than the haphazard efforts of countless school districts and even some statewide systems in the United States.[9] To a large extent we have not yet begun to plan for educational planning.

Agents of Change

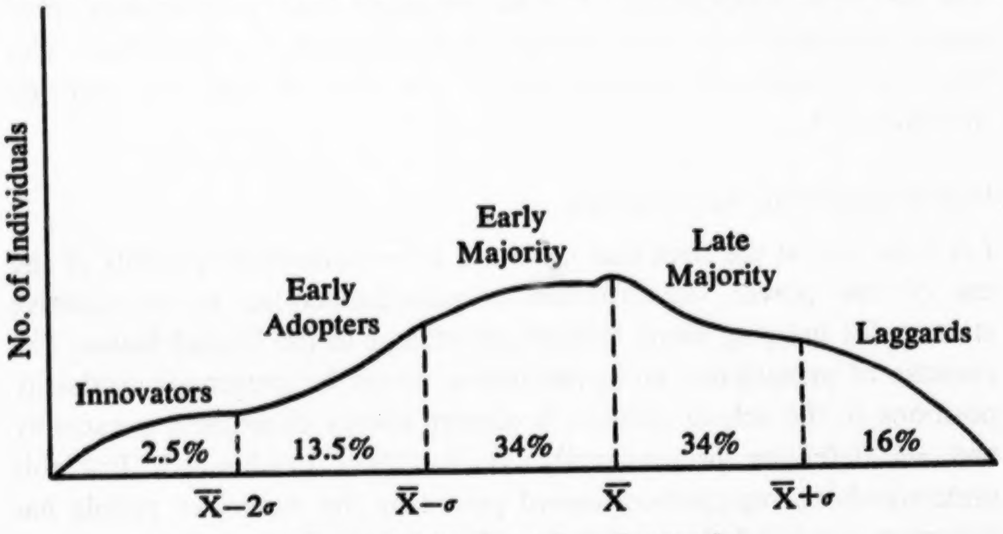
Social change takes place through some medium, organization, group, or individual. Collectively these are agents of change. Reference has already been made to some of the types of formal organizations that tend to promote directed change. These include both governmental and non-governmental agencies. But informal groups or alliances of people may also be powerful factors affecting change — either by promoting or inhibiting it. The existence and influence of power elites, especially as decision-makers at the local community level, has been documented by many investigators. Hunter has cited several instances of the way in which such elite groups operate to inhibit or promote change depending upon the consequences of such proposed change for the elite group itself.[10] President Eisenhower, in his farewell address, despite his lifelong association with the military, spoke out strongly against the growing power wielded by the "military-industrial complex" in the United States.

Aside from influence exerted on change by formal and informal social groups, the individual continues to play a key role in social change, both as inventor and innovator. Inventions — like symphonies, novels, or poems — do not lend themselves well to creation by committees. The impact on social change of such inventions as movable type, the internal combustion engine, radio, and computers has been documented so extensively that it need not be reviewed here. But the role of the innovator in effecting social change has been less thoroughly explored.

Who are the innovators? Rogers defines them simply as "the first members of a social system to adopt new ideas."[11] He goes on to list several different terms that have been used to characterize innovators: pioneers, lighthouses, advance scouts, progressists, non-parochials, experimentals, cultural *avante garde*. These are quite descriptive, but they do not give a very objective definition of what an innovator is. Rogers' own "standard definition" is depicted graphically in Figure 1. Innovators are categorized as the first 2.5 percent of an audience to adopt a new idea.

The above definition of an innovator is rather coldly statistical. Innovators are human beings. True, they may march to a different tune and be in step with a different drummer. But they experience failure as well as success, frustration as well as exhilaration. The following "word picture of the innovator" provides further insights into the statistical abstraction:

FIGURE 1:[12] Innovators as the First 2.5 per cent to Adopt a New Idea



Innovators are venturesome individuals; they desire the hazardous, the rash, the avant-garde, *and the risky. Since no other model of the innovation exists in the social system, they must also have the ability to understand and use complex technical information. An occasional debacle when one of the new ideas adopted proves to be unsuccessful does not disquiet innovators.*[13]

The above brief analysis of social change brings us back to two fundamental components — the individual and the social structure. To argue about which precedes the other in affecting social change is to engage in a pointless chicken and the egg type of controversy. To argue about which is more important in affecting social change is to engage in an equally fruitless heredity versus environment type of argument. Just as culture and personality are inextricably intermeshed, so also the individual and society are in a constant ebb and flow of interaction from which change emerges in each.

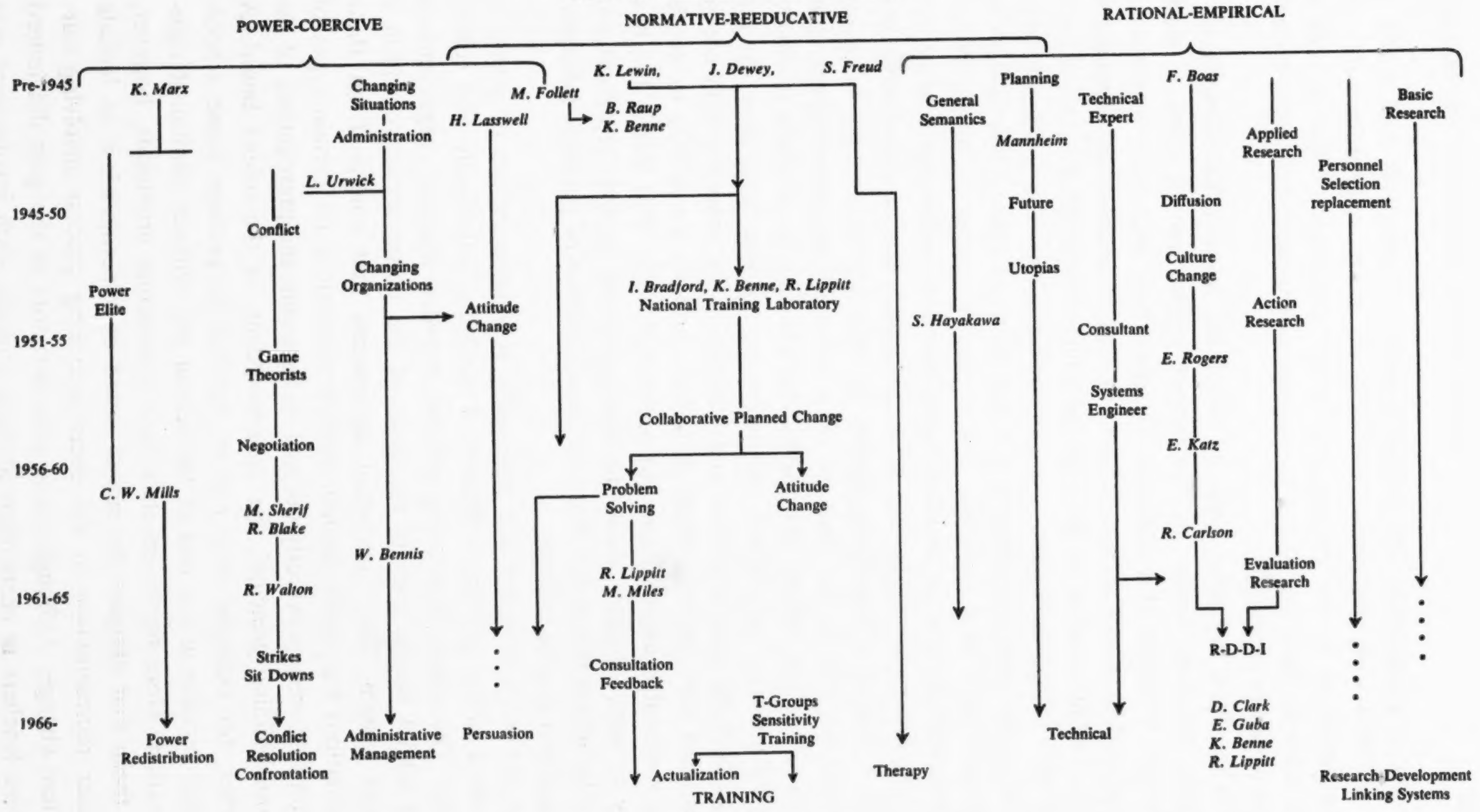
EFFECTING EDUCATIONAL CHANGE

As a derivative of social change in general, educational change partakes of many of its characteristics and may be viewed by using similar analytical tools and constructs. One of the more inclusive attempts to analyze educational change within this larger setting is provided by Chin.[14] His emphasis is on strategies for bringing about deliberate change. These strategies are categorized into three types: (1) the power-coercive, (2) the normative-reeducative, and (3) the empirical-rational. The historical development of these strategies, their overlappings, processes associated with each strategy, and representative individuals who have made significant contributions to this area of study are depicted in Figure 2.[15]

Power-Coercive Approaches

Let it be said at the start that there are a few serious proponents of the use of raw power, authoritarian or anti-democratic, as an effective strategy for bringing about educational change in the United States. The exercise of prescriptive and proscriptive power by persons in authority positions in the school systems is almost always demeaning personally and self-defeating professionally. It is widely condemned. But this understandable repugnance toward power by the American people has unfortunately blinded many of them from making a distinction between

FIGURE 2: Strategies of Deliberate Changing


POWER-COERCIVE
NORMATIVE-REEDUCATIVE
RATIONAL-EMPIRICAL
Pre-1945
1945-50
1951-55
1956-60
1961-65
1966-
K. Marx
Power Elite
C. W. Mills
Power Redistribution
Conflict
Game Theorists
Negotiation
M. Sherif
R. Blake
R. Walton
Strikes
Sit Downs
Conflict Resolution Confrontation
Changing Situations
Administration
L. Urwick
Changing Organizations
W. Bennis
Administrative Management
H. Lasswell
Attitude Change
Persuasion
M. Follett
B. Raup
K. Benne
K. Lewin,
J. Dewey,
S. Freud
I. Bradford, K. Benne, R. Lippitt
National Training Laboratory
Collaborative Planned Change
Problem Solving
Attitude Change
R. Lippitt
M. Miles
Consultation Feedback
T-Groups
Sensitivity
Training
Actualization
TRAINING
Therapy
General Semantics
S. Hayakawa
Planning
Mannheim
Future
Utopias
Technical Expert
Consultant
Systems Engineer
Technical
F. Boas
Diffusion
Culture Change
E. Rogers
E. Katz
R. Carlson
Applied Research
Action Research
Evaluation Research
R-D-D-I
D. Clark
E. Guba
K. Benne
R. Lippitt
Personnel Selection replacement
Basic Research
Research-Development Linking Systems

N.B. The names noted are intended to typify a point of view or an article of interest. Many significant contributors to each strategy have had to be omitted.

power as a legitimate and necessary aspect of social life and power as a Machiavellian instrument for self or group aggrandizement. As changes occur in any society, and in any sub-system within it such as the schools, there are bound to be power operations and some re-location of power structures.

What, then, are some ways by which the inescapable existence of a power structure within an educational system can be used to effect change? Consider this situation: The teachers and other professional personnel in school system X have for several months been engaged in a curriculum revision project. In the course of heated discussions over one area of the curriculum — social studies, let us say — it has become evident that such polarization of viewpoints has taken place that progress is literally at a standstill. The person in charge of the revision, a curriculum director or assistant superintendent, could legitimately step in and arbitrarily resolve the issue. He could, but he also knows that from a human relations standpoint, he may lose more than he gains. Instead he calls in the Director of a nationally prominent curriculum study project, or faculty personnel from a university, to assist in resolving the issue by conciliation, mediation, or outright arbitration. At this stage both the administration and teachers in the school system are so frustrated with their deadlock that they normally are willing to accept any reasonable adjudication. No one would argue that this is the best way to settle disputes about the curriculum but it does represent one way by which the power that is a concommitant of prestige, influence, or position may be utilized.

A far more complex and potentially revolutionary use of power is involved in the growing militancy of teachers, individually and collectively. The whole negotiating process between teachers' organizations and school boards goes to the heart of the power structure within a school system. The contractual agreements that emerge from these negotiations frequently contain explicit restrictions on certain types of action that were previously deemed to be within the prerogatives of the school building principal, the superintendent, or the school board. A teacher, for example, may not be detained to perform some school-related services at the end of the school day without additional compensation. More significant than such contractual provisions, however, are those that obligate the school board or superintendent to include teacher representation in the decision-making process involving curriculum change. Although many administrators in the past did indeed involve teachers in curriculum revision projects, such involvement was either implicitly or explicitly in an advisory capacity only. Under many of the currently negotiated contracts, it is mandatory. Teachers perforce are now unavoidably involved as agents of educational change.

The shifting power structure in American education as a result of teacher militancy has even more profound implications. It is modifying the very concept of educational authority itself. Note that what is being referred to here is authority — not authoritarianism. Dewey pointed out long ago that it was one of the failings of the American people not to make this distinction. Because of our strong egalitarianism we have tended to reject all forms of authoritarianism as manifested through such agencies as an institutionalized church, a national government, or a local political body. Unfortunately, in the minds of many people, this rejection has been transferred and applied as well to all forms of authority. But to equate authority with authoritarianism is logically, semantically, and historically invalid. Benne's cogent analysis of the concept of authority, written a generation ago, is still relevant:

> *. . . Authority is a necessity of all stable community life. Today, under the impact of growing collective interdependence men are forced to rethink and reconstruct the operating bases of community authority. The widespread attempt under the historic liberal ideology to deny the principle of authority in human relations has helped to blur the recognition of operating bases of authority necessary to stable and responsible individual and group life, thus paradoxically contributing to the restoration of extreme authoritarianism in human affairs. The values of creative individuality which the liberal ideology rightly stressed are basically endangered by the recrudescence of authoritarianism. Liberal-democrats cannot combat authoritarianism with the advocacy or practice of a partly fictitious and abstract "freedom." They must discover (in part rediscover), advocate, and propagate a type of authority organically united with freedom and individuality. Those who accept this challenge must find their redefined functions, their specific authorities, whether as parents, educators, publicists, or statesmen, within the conception and program of such an authority. Only such an authority is a proper foil to a widely resurgent authoritarianism.*[16]

What is occurring now in American education is indeed a power struggle of the first magnitude. It is not intended to, nor can it, eliminate authoritative relationships in the educational system. But it can and apparently will revise these relationships by reallocating elements of authority. In doing so it will impel the teacher into a role of increasing importance as an agent of educational change.

Normative-Reeducative Approaches

The client is the center of focus in the normative-reeducative approach to effecting educational change. Client in this instance is defined as any individual, group, organization, institution or segment of society into which the change is to be introduced. The use of T-groups, sensitivity training, human relations programs, and action research are some of the techniques associated with this approach. Chin points out that in this context, "the problem of change is considered to be not necessarily an absence of technical information among members of the client system, but rather the nature of attitudes, values, human skills and relationships of the people in the system that act to facilitate or resist change."[17]

Although the individual may be at the center of attention in the normative-reeducative approach, the most usual emphasis is on formal or informal social groups. Hencley identifies three ways by which groups may be viewed from the change agent's standpoint: (1) as *media* of change, (2) as *targets* of change, and (3) as *agents* of change.[18] When the group is employed as a medium of change, it is important that there emerge within the group a strong "we" feeling, that there be a minimal psychological distance between group members, and that there be opportunities for internalizing new attitudinal and value patterns. Employing the group as a target of change requires that the change agent build channels of communication within the group so that the members may verbalize and resolve their problems even though tension and hostility may arise during the process. The strategy of employing the group as an agent of change is commonly exemplified by the use of a faculty committee in carrying out a curriculum revision study and making recommendations for change. There are periods of time when members of a given group — teachers in school systems, for example — may partake of all three roles: medium, target, and agent of change. But whatever the roles, the pervading emphasis in the normative-reeducative strategy is a strong in-group or "we" feeling among members of the group and the internalization of behavior patterns fostered through group norms.

Empirical-Rational Approaches

The central goal of education in American society, according to a recent statement by the Educational Policies Commission, is the development of the intellect. The assumption is that man is a rational being. Given the choice of acting rationally or irrationally he will tend to choose the former. Faith in this assumption underlies the empirical-rational approach to educational change. The task of the change agent is seen as one of demonstrating through the best known method (usually through research and subsequent application) the validity of the proposed change in terms of the universal benefits to be derived from adopting it.

Probably the most inclusive model depicting the empirical-rational approach is provided by Clark and Guba.[19] It is referred to in the middle stream of developments under the empirical-rational heading in Figure 2, and is expanded and explained further in Figure 3 (which Clark and Guba prefer to term a "schema"). Note the pivotal position assigned to research in this schema. From it emanate the other processes related to and necessary for change. These processes are (1) development, including invention and design; (2) diffusion, including dissemination and demonstration, and (3) adoption, including trial, installation, and institutionalization.

Research Phase. In elaborating on the research phase of their schema, the authors point out that they have deliberately refrained from classifying sub-categories of research such as basic or applied, descriptive or analytical, and the like. Rather it is assumed that all research has as a common objective the advancement of knowledge. It must be primarily assessed on this basis whether it affects practice or not. If it does not affect practice it may simply confirm the fact that development and diffusion mechanisms either did not exist or were inadequate — a common situation in the field of education.

Development Phase. Invention and design, the two stages of the development phase, are judged by criteria that are different from those that apply to research. The reason for this is that the conditions conducive to invention and design are quite different from those of research. Take the matter of programmed instruction as an illustration. Is there face validity in this invention? If one assumes that there are certain facts or concepts that can just as readily be transmitted to the learner by a mechanical device as by a teacher, then one concludes that the new idea has face validity as an invention. Is it viable? One may conclude that if it increases costs by 500 per cent it is doomed to rejection and therefore is not viable. What impact will it have? Here again we can make only rough estimates. If it is viable, it may be worth pursuing because it can have wide potential application to education. Although

FIGURE 3: A Classification Schema of Processes Related to and Necessary for Change in Education[20]

	RESEARCH	DEVELOPMENT		DIFFUSION		ADOPTION		
		INVENTION	DESIGN	DISSEMINATION	DEMONSTRATION	TRIAL	INSTALLATION	INSTITUTIONALIZATION
OBJECTIVE	To advance knowledge	To formulate a new solution to an operating problem or to a class of operating problems, i.e., TO INNOVATE	To order and to systematize the components of the invented solution; to construct an innovation package for institutional use, i.e., TO ENGINEER	To create widespread awareness of the invention among practitioners, i.e., TO INFORM	To afford an opportunity to examine and assess operating qualities of the invention, i.e., TO BUILD CONVICTION	To build familiarity with the invention and provide a basis for assessing the quality, value, fit, and utility of the invention in a particular institution, i.e., TO TEST	To fit the characteristics of the invention to the characteristics of the adopting institution, i.e., TO OPERATIONALIZE	To assimilate the invention as an integral and accepted component of the system, i.e., TO ESTABLISH
CRITERIA	Validity (internal and external)	Face validity (appropriateness) — Estimated viability — Impact (relative contribution)	Institutional feasibility — Generalizability — Performance	Intelligibility — Fidelity — Pervasiveness — Impact (extent to which it affects key targets)	Credibility — Convenience — Evidential assessment	Adaptability — Feasibility — Action	Effectiveness — Efficiency	Continuity — Valuation — Support
RELATION TO CHANGE	Provides basis for invention	Produces the invention	Engineers and packages the invention	Informs about the invention	Builds conviction about the invention	Tries out the invention in the context of a particular situation	Operationalizes the invention for use in a specific institution	Establishes the invention as a part of an ongoing program; converts it to a "non-innovation"

these are admittedly gross criteria, Clark and Guba argue, "It is certainly better to err on the side of permissiveness at the invention stage than to cut off good ideas because they cannot immediately be proven to be valid and viable."[21]

As for the design of an educational invention one of the most publicized recent examples is the work of the Physical Science Study Committee (PSSC) and the Biological Science Study Committee (BSSC). These groups invented and designed a means for modifying the subject matter of secondary school physics and biology courses. Had their recommendation taken the form only of a written report to a selected few fellow professionals, it is unlikely that it would have had a significant impact on the schools. Instead it was designed and packaged in a form (textbooks) ready for diffusion and adoption. Although there are many severe critics of these textbooks, no one can deny that they have indeed had a great impact on the science curriculum. Nothing of this scope or magnitude is now underway in the social studies area.

Diffusion Phase. As the first stage in the diffusion phase, dissemination is concerned with communicating to potential practitioners information about the existence and general nature of the invention or innovation. The criteria of intelligibility and fidelity refer to the extent to which the information has reached the recipients in understandable and nondistorted form. The credibility gap should be minimal.

A preliminary study on the diffusion of a single educational innovation (flexible scheduling) in three high schools in the state of Michigan has recently been made in which the following were some of the conclusions reached concerning the diffusion process:

> *It appears important that* teachers feel they have adequate information about the innovation . . . . *Other information important to the teachers is how enthusiastically the superintendent supports the innovation.*
>
> . . . *Special effort should be made to develop positive attitudes toward the innovation among teachers in the school who are looked to for information and advice by other teachers. Efforts should be made to enhance the credibility of the principal as a source of information.*[22]

The demonstration stage of the diffusion process is frequently misunderstood. It is not a glorified "show and tell" period. It should provide an opportunity for the potential practitioners to examine critically and assess objectively the proposed innovation. The evidential assessment criterion that applies here should be based in part on the kind of evaluation criteria discussed by Payette and Cox in Chapter 7.

Adoption Phase. The trial period during the adoption phase enables the practitioners to assess the proposed change in terms of its quality, value, fit, utility and applicability to the local scene. Aside from the assessment that such a trial period may yield, it may also provide a psychologically invigorating climate among the intended clients. They become affectively involved in the innovation. They begin to develop a more comfortable and non-threatened attitude not only toward the innovation itself but, more importantly, toward the very idea of becoming involved in educational change. Howsam summarizes this strategy succinctly:

> *An important general strategy is to approach change in such a way that there results a climate hospitable to continuous adaptation and change. Many educational approaches to change in the past have been directed at a single change. This tends to result in thinking of change as* product introduction *rather than as a* process *of* adaption. *This approach is dysfunctional in any long-term view since it tends to lead to an attitude of "we innovated last year."*[23]

IMPLEMENTING CHANGE IN THE SOCIAL STUDIES CURRICULUM

In one sense this section on change in the social studies curriculum is redundant. After all, if the above exposition of the change process in society as a whole and in one institution of that society has any validity, the readers can make their own application to any sub-system within the institution. This should especially follow if the readers are predominantly trained in the social sciences and are adept at making the necessary translations and transplantings. Or does it logically follow? Suppose each of us were given the assignment of building a self-powered vehicle and then given the basic mechanical equipment for the task — an internal combustion engine, four wheels, necessary axles, transmission, gear box, and other miscellaneous items including a bucket of bolts and nuts. We can speculate that an interesting variety of vehicles would emerge. They may include the conventional rear-wheel drive vehicle or front-wheel drive, trucks designed to haul things or passenger cars designed to transport people, a car designed to meet existing road conditions or a "car of the future."

Without laboring the point we may conclude that there is some merit in attempting to narrow even further the focus of our discussion on change so as to highlight the particular problems, issues, and processes associated with curriculum change in the social studies. This discussion will be further sub-divided so as to address itself to two different sets of conditions under which curriculum changes may be made in the social studies. The first set of conditions arises out of the fact that the scores of curriculum projects that have been spawned in the past decade are now at the stage where they are producing or will produce a "packaged program" of curricular materials. Some of these materials are based on specific subject matter areas such as history, geography, anthropology; some are multi-disciplinary; some are concept centered. For purposes of our analysis their important common characteristic is that they confront the potential adopter with a somewhat unified, sequential, and presumably coherent body of instructional materials and suggested teaching procedures.

The second set of conditions can be described as the more conventional and persistent issues relating to curriculum change in the social studies regardless of whether or not packaged deals, new textbooks, new technology or any other new elements are involved. Nor should the reference to them as conventional and persistent be construed as derogatory or downgrading. These conditions include such down-to-earth procedural problems as ways of initiating a curriculum study or revision project, setting up the necessary committee machinery and assignments to do the job, and putting the new program into action.

Incorporating "Packaged" Materials into the Curriculum

To relate this discussion of packaged materials to our previous treatment of processes relating to educational change, we may refer again to the model depicted in Figure 3 on page 292. What we are doing essentially is to "plug in" at some point in the diffusion stage of this model. The package has already been researched, invented, and designed — for better or for worse. A local social studies curriculum committee, for example, is now at the point of being informed of the innovation; it has been disseminated to the committee. Presumably there also has already been or will be some kind of demonstration of the material. If a trial test proves to be acceptable the committee may then choose to operationalize and formally establish the innovation, i.e., to adopt it.

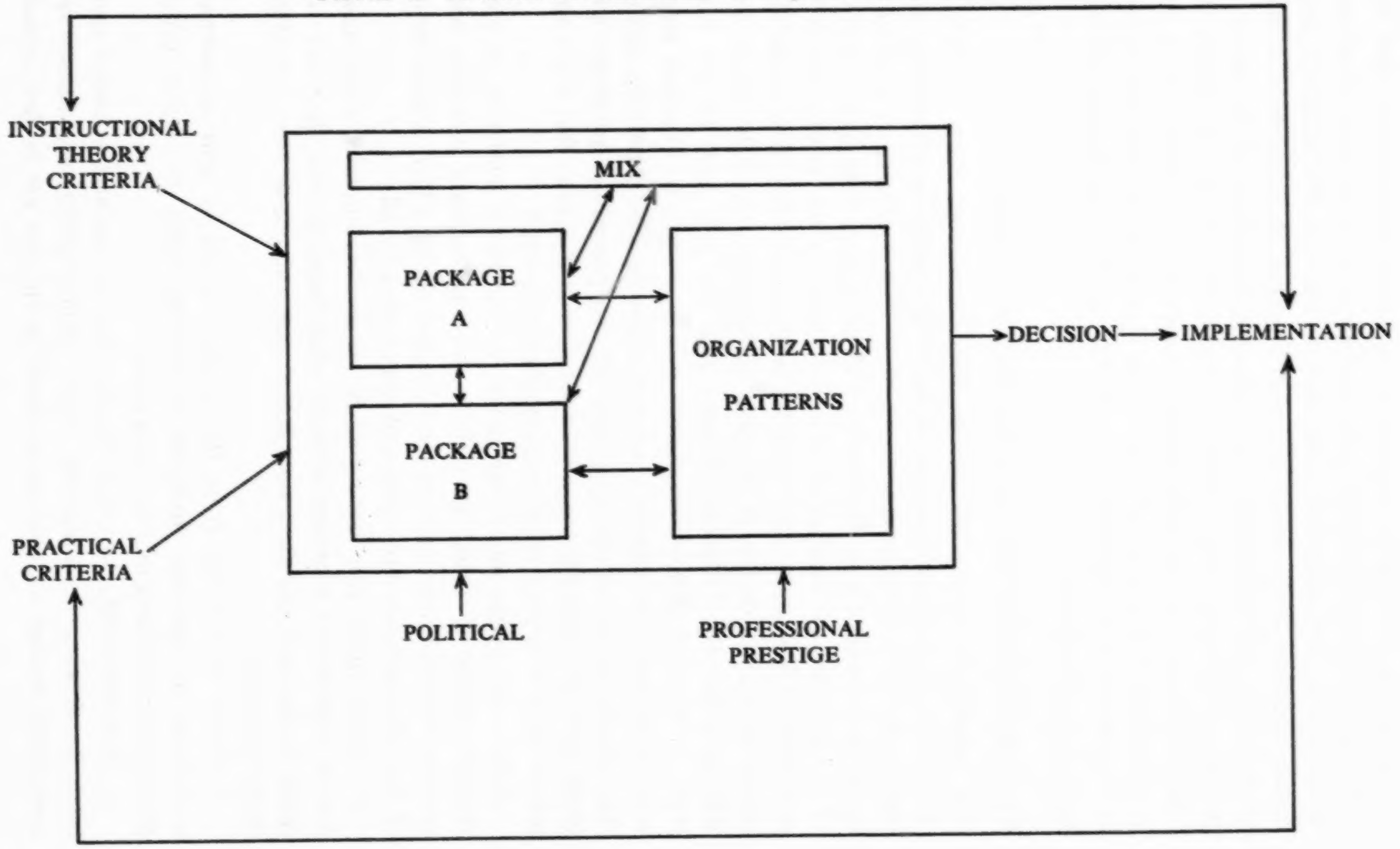
Now for a closer look at some of the steps in the adoption process from the diffusion stage on. To facilitate this closer look we employ a model of more limited scope than any used thus far. It is shown in Figure 4.[24]

The local committee faced with the choice of package A developed by curriculum project X and package B developed by curriculum project Y needs to consider several factors affecting the choice. At the top left of the model are indicated the instructional theory criteria that are needed to assess the materials. Included in these criteria are assumptions concerning the nature of the learner, the nature of the learning process and the goals of social studies instruction. At the lower left of the model the practical criteria refer to such matters as the cost of the new program in terms of materials and equipment and the extent to which teachers, both inservice and preservice, are professionally equipped to handle the new materials. A more detailed treatment of both groups of criteria is contained in Chapter 8 by Morrissett and Stevens.

Two additional aspects must go into the decision-making process of the local committee. One concerns the political situation as it affects the package. Who wants it? Why? How powerful are they? The second concerns the professional image created by the local school if it accepts a given package. Will it be perceived as a swinging or square school system? Will it gain or lose prestige? Will other schools view it as a professional leader or as a headline-grabbing fadist?

Inside the square are depicted many of the tough organization and management decisions that must be faced. Remember that either package will be introduced into a going concern. If package A, for example, calls for team teaching and modular scheduling, how can these be integrated into a total school organizational pattern? Programmed instruction may be incompatible with existing self-contained classrooms. If package B contains a heavier emphasis on the humanities, what changes, if any, will be necessary in the language arts program of the school? If both packages are concept oriented, how will they articulate with other more traditionally oriented courses? It has been suggested that a new way of looking at these multiple variables is to consider them as being part of a mix box. Correspondingly, the new role suggested for the curriculum director is to call him a "mixer" or orchestra conductor. Nor is this so far-fetched. Senesh has already proposed "a new art . . . which I call the orchestration of the curriculum."[25]

FIGURE 4: A Model for Curriculum Development Decision Making


INSTRUCTIONAL THEORY CRITERIA
MIX
PACKAGE A
PACKAGE B
ORGANIZATION PATTERNS
DECISION
IMPLEMENTATION
PRACTICAL CRITERIA
POLITICAL
PROFESSIONAL PRESTIGE

Out of this curriculum analysis of packages, organization, and mix comes a decision to innovate with package A or B or some third pattern. At that time the local committee moves into the adoption stage of the Clark and Guba model shown in Figure 3. It should be reiterated at this point that evaluation is a continuing ingredient of all phases of the change process. This evaluation will both precede and follow the implementation (or institutionalization) phase. As a follow-up to implementation it may also affect either the theoretical or practical criteria. It thus becomes a "feedback loop" which can be used to generate new inputs into the system.[26]

Procedural Considerations in Curriculum Change

The impetus for curriculum change may come from many sources. It may have an empirical-rational basis in the professional reading and discussions of teachers in a school system. It may stem from a sensitivity session attended by a few teachers in the system who have a feeling of being turned on and tuned in with respect to the newest things in education. It may even stem from the well-worn device of the administrative edict. Regardless of the source, however, the individuals who will formulate the proposed changes and who will have to live with them as teachers and administrators will also have to establish some rules of the game for carrying out these changes. The remaining part of this chapter is concerned with some of the procedural problems and issues that are typically faced by a local school system that has committed itself to change in its social studies program.[27]

Before any major moves are made by the group interested in curriculum change it would be well to have preliminary meetings with relevant administrators and the school board during which commitments of the following type are made and understood by all:

1. *Social studies teachers would be released to attend a small number of professional meetings with the understanding that they were to report to the staff and the school board concerning new ideas presented at the meetings.*

2. *Teams of teachers from the systems would be sent to summer workshops or inservice institutes to prepare units on topics which might be incorporated into the curriculum.*

3. *Teachers would be given released time or summer extended contracts to develop new teaching units, bibliographies, community resource files, testing and evaluation practices, etc., for use in their school.*

4. A budget would provide for curriculum consultants to work with the teaching staff on the revision project.

5. An open meeting with the school board would permit the curriculum planning group to present a report on the status and needs of the social studies program.

6. An intra-system newsletter would be used to keep the entire staff informed about the progress of the revision effort; and other printed materials would be distributed which would suggest new practices and new curriculum designs.

7. Additional surveys might be initiated in order to determine the present status of the program, the professional judgments of the staff regarding it, and the feeling of students and lay people toward the program.[28]

With these and similar commitments made, a Coordinating Committee may be established to oversee the entire curriculum revision process. It should consist of representatives from the primary and intermediate grades, the junior high school or middle school, and the senior high school. The prevailing practice is to have a classroom teacher or department head serve as chairman rather than a principal or other administrator. The membership of the committee should also reflect a variety of interests and competencies in the social sciences — including those with a knowledge of latest developments in the behavioral sciences. Nor should parents and students — the ultimate "consumers" of the finished product — be overlooked. Their presence and active participation tend to narrow both the credibility and the generation gap.

The committee may then proceed to divide its areas of responsibility under the following five tasks: (1) defining the purpose and scope of the revision, (2) developing the structure for the revision report, (3) stipulating specific procedural steps in the revision process, (4) estimating time schedules for the completion of these steps, and (5) putting the revision project into action. As with all such sequential tasks there may be some over-lapping or telescoping of steps.

Purpose and scope. Perhaps the initial policy question to be resolved is "How ambitious should the curriculum revision be?" Should it deal with only elementary, or secondary, or K through 12? Shall it concentrate on one subject matter area, e.g. American history, or deal with all areas? Should the sequence of topics or concepts introduced into the curriculum be on the basis of increasing emphasis on the same body of ideas in each grade or the discrete grade placement of selected concepts? Should locally developed resource units be prepared, or should various packaged deals be considered, or should both be used? In what mix?

Regardless of how the above questions are answered, it should be made unequivocally clear to the participants in the revision that their work will indeed be incorporated into the curriculum. Working under conditions of doubt is frustrating and self-defeating.

Structuring the report. However much curriculum guides, committee reports, and scope and sequence charts are criticized, these are the typical outputs of revision efforts. The printed word is still one of the most accurate and functional ways of disseminating information. So the Coordinating Committee will have to wrestle with the problem of what written form its labors will take. If the decision is to prepare curriculum guides, for example, further decisions must be made as to whether these should be for each grade, for elementary and secondary, or from K through 12. Other matters relating to the final report concern the extent to which such supplementary materials as teachers' references and student resource materials will be included. School librarians may be particularly helpful at this point.

A corollary to the problem of structuring the report is the way in which the sub-committees are structured. They may be organized for each grade level or on a K through 12 basis. Advantages and disadvantages inhere in each. A grade by grade type of committee structure may be initially more productive and harmonious: the members talk the same language. But the K through 12 structure may promote the kind of broadened understanding of the total social studies program that is one of the goals of the entire revision process. In practice there tends to be an accommodation whereby selected members of a larger based committee are given the responsibility to concentrate on a given grade level or levels.

Procedural steps. Remembering that its role is to set the stage for the revision project itself, the Coordinating Committee must give some guidelines to those who will be carrying out related tasks. Teachers and others involved in the revision feel more secure when they know what is expected of them. A possible set of such procedural steps is the following:

Step One. *The study, development, and adoption of program goals, grades K-12.*

Step Two.	*The development and adoption of grade level and course objectives.*
Step Three.	*The adoption of sequential grade level and course offerings.*
Step Four.	*The elaboration of substantive content outlines and development of teaching procedures.*
Step Five.	*A trial elaboration and evaluation of the revised program.*[29]

Time schedule. As most journalists can attest, deadlines tend to prod one into action. Assuming that the Coordinating Committee was appointed in September and began its work shortly after the start of the school year, we may further assume that its work up to this time has taken anywhere from three to six months. It now sets specific dates for the completion of the steps listed above. The interval between the establishment of the time schedule and the beginning of Step One may be as much as three months. During this time the teachers who have not yet been directly involved in the preliminary planning may be further informed and encouraged to look with favor on the revision. So far as these teachers are concerned they are still at the receiving end of the diffusion stage of the total innovation process. And it must be realistically pointed out that diffusion is regarded with distaste by some members of the profession. It smacks of brainwashing or hucksterism. Guba recognizes a real problem here. "I suppose," he says, "in fairness, that one must concede that a great deal of hucksterism does take place. However, this fact may be the best argument *in favor of* well-organized diffusion efforts — so that one can be sure that what is being diffused is a viable alternative rather than just another fad."[30]

Launching the revision project. It is well to inaugurate the revision at a general meeting attended by a wide representation of teachers, administrators, and school board members. Written information explaining the purpose, goals, procedures, and time schedule for the revision should be distributed and explained. Opportunity should be provided for reaction and questions, especially from those teachers who may not have been involved in the activities of the Coordinating Committee and who may understandably feel somewhat unsure of their role — even threatened. Perhaps this can best be accomplished by having the teachers discuss the plans for the revision in small informal groups in which they can feel free to speak their mind on any aspect of the plan. The general meeting should be concluded after all relevant persons know and accept their respective responsibilities. If this is not accomplished in one session, or if there are still a substantial number who are either unclear or unsure about next steps, it would be wise to schedule additional meetings, perhaps in smaller groups, until all major ambiguities are dispelled. From this point on the participants in the revision process carry out the previously agreed upon Steps One through Five.

A final word should be said about the place of evaluation in this and all efforts aimed at curriculum change. Evaluation serves two critical and seemingly contradictory purposes — one promoting change, the other promoting stability. As a key link in the feedback mechanism that loops back from the output (IMPLEMENTATION in Figure 4) to the input (A or B) it tends to act as a self-regulatory device which is continuously modifying the system depicted by the model. Thus evaluation produces change. On the other hand, a thorough evaluation of the curriculum revision may (and hopefully will) induce the practitioners (teachers, administrators, school board) to *value* the new curriculum more. As this valuing of the new program becomes internalized with individuals it tends to become more firmly established — or "institutionalized," as Clark and Guba put it. Thus evaluation produces stability. But this apparent contradiction does not make the task of curriculum change in the social studies impossible. It just makes it more difficult. In this case our sub-system (the social studies curriculum) is merely exhibiting the same basic characteristics that are found in our larger system (society as a whole). Both reflect the continuous interplay of stability and change.

FOOTNOTES

[1] For a more inclusive view of social and educational change in cross-cultural perspective, see:

Thomas, R. Murray; Sands, Lester B.; and Brubaker, Dale L., editors. *Strategies for Curriculum Change: Cases from 13 Nations*. Scranton, Pa.: International Textbook Co., 1968.

[2] Schlegel, Richard. *Time and the Physical World*. East Lansing: Michigan State University Press, 1961. p. 1.

[3] Martindale, Don, editor. *Functionalism in the Social Sciences*. Monograph 5. Philadelphia: American Academy of Political and Social Sciences, 1965. p. viii.

[4] Jarvie, I. C. "Limits of Functionalism and Alternatives to It in Anthropology." Martindale, *op. cit.*, pp. 18-34.

[5] Moore, Wilbert E. *Order and Change: Essays in Comparative Sociology*. New York: John Wiley & Sons, 1967. p. 271.

[6] *Ibid.*, p. 26.

[7] Wronski, Stanley P., and Sawasdi-Panich, Kaw. *Secondary Education, Manpower and Educational Planning in Thailand.* Education in Thailand Series, Publication Number 2. Bangkok: Educational Planning Office, Ministry of Education, 1966.

[8] Moore, Wilbert E. "Social Change." *International Encyclopedia of the Social Sciences* 14: 365-75; 1968.

[9] See, for example: Parnes, H. S. *Forecasting Educational Needs for Economic and Social Development.* Paris: Organization for Economic Cooperation and Development, 1962.

[10] Hunter, Floyd. *Community Power Structure: A Study of Decision Makers.* Chapel Hill: University of North Carolina Press, 1953.

[11] Rogers, Everett M. "What Are Innovators Like?" *Change Processes in the Public Schools.* Eugene, Ore.: Center for the Advanced Study of Educational Administration, University of Oregon, 1965. p. 55.

[12] Adapted from: Rogers, Everett M. *Diffusion of Innovations.* New York: The Free Press of Glencoe, 1962. p. 162.

[13] Rogers, "What Are Innovators Like?," *op. cit.*, p. 57.

[14] Chin, Robert. "Basic Strategies and Procedures in Effecting Change." *Planning and Effecting Needed Changes in Education.* (Edited by Edgar L. Morphet and Charles O. Ryan.) Denver, Colo.: Designing Education for the Future: An Eight-State Project, 1967, pp. 39-57.

[15] Chin, *op. cit.*, p. 47.

[16] Benne, Kenneth D. *A Conception of Authority.* New York: Bureau of Publications, Teachers College, Columbia University, 1943. pp. 27-28.

[17] Chin, *op. cit.*, p. 49.

[18] Hencley, Stephen P. "Supplementary Statement" to Chin's paper, in Morphet and Ryan, *op. cit.*, p. 62.

[19] Clark, David L., and Guba, Egon G. "An Examination of Potential Change Roles in Education." *Rational Planning in Curriculum and Instruction: Eight Essays.* Washington, D. C.: Center for the Study of Instruction, National Education Association, 1967. pp. 111-133.

[20] *Ibid.*, p. 116.

[21] *Ibid.*, p. 119.

[22] Lin, Nan, and others. *The Diffusion of an Innovation in Three Michigan High Schools: Institution Building Through Change.* East Lansing: Michigan State University Institute for International Studies in Education and Department of Communications, 1966. p. 2.

An interesting adjunct to this report is a follow-up study conducted in Thailand using a modified version of the same basic research design and instrument. See: Rogers, E. M.; Leu, D. J.; Joyce, R. E.; and Mortimore, F. J. *The Diffusion of Educational Innovations in the Government Secondary Schools of Thailand.* Education in Thailand series, Publication No. 5. Bangkok: Educational Planning Office, Ministry of Education, 1968.

[23] Howsam, Robert B. "Effecting Needed Changes in Education." Morphet and Ryan, *op. cit.*, p. 72.

[24] This model and the following description of it are adapted from "A Model for Curriculum Development Decision Making." *ASCD News Exchange.* Supplementary Edition. Washington, D. C.: Association for Supervision and Curriculum Development, a department of the National Education Association, May 1967. 4 pp.

[25] Senesh, Lawrence. "Organizing a Curriculum Around Social Science Concepts." *Concepts and Structure in the New Social Science Curricula.* (Edited by Irving Morrissett.) Boulder, Colo.: Social Science Education Consortium, 1966. p. 24.

[26] For a more extensive treatment of the evaluation process, see Chapter 7 by Payette and Cox.

[27] These procedures are based on several written sources and personal experiences, but rely most heavily on:

(1) Engelland, C. W.; Lundstrum, J. P.; and Negley, H. H. "Curriculum Development by Social Studies Teachers on the Local Level." *Social Studies Curriculum Improvement: A Guide for Local Committees.* (Edited by Raymond H. Muessig.) Bulletin No. 36. Washington, D. C.: National Council for the Social Studies, a department of the National Education Association, 1965. Chapter III, pp. 28-43; and

(2) Wesley, Edgar B., and Wronski, Stanley P. *Teaching Social Studies in High Schools.* Fifth edition. Boston: D. C. Heath, 1964. pp. 35-43.

[28] Engelland, *op. cit.*, p. 31.

[29] *Ibid.*, pp. 35-36.

[30] Quoted in "Guba on Diffusion." *PACEreport,* March 1968. p. 7.

CHAPTER TEN

John S. Gibson

The Social Studies Teacher And Curriculum Change

The central focus of this chapter will be on the social studies teacher in relation to curriculum change — what his role should be in the change process and how he can prepare to handle this role effectively. This focus has been selected because the teacher is the pivotal element in effecting change in the "real" curriculum, that which is developed day by day in the individual classroom. Limits of space preclude any systematic treatment of the broad area of preservice preparation of future social studies teachers; rather, this chapter is concerned with the situation of the teacher who is in the classroom today and is faced with the challenge of implementing new approaches and new programs for social studies instruction. Current inservice programs and practices, especially those relating to a number of the social studies curriculum development projects, will be explored, along with a discussion of some fundamental issues and innovative practices affecting the role of the teacher in bringing about change.

SOME ISSUES AND PROBLEMS

One decision that must be faced in curriculum development is the choice between gradual vs drastic revision. It is the author's conviction that curriculum change is essentially a matter of grafting the new upon the old. He believes that it would be rash and presumptuous for any educator, project staff, or institution engaged in curriculum improvement in the social studies to recommend a total "wall-to-wall" change in the social studies program in any school. The old adage that one should not throw out the baby with the bath water is pertinent to the issue at hand. Irrespective of the surface appeal of any innovative curriculum for the social studies, an entirely new and total program should not be adopted by a school system in exchange for its present program. Rather, this writer believes, the "new" must be woven in slowly and carefully.

Several arguments may be cited in support of this view. Not the least is the fact that few if any teachers are prepared to terminate their current curriculum and introduce a completely new program, even if brilliant scholars and sales-minded publishers declare it to be the greatest thing ever to hit the schools. Generally, teachers are unwilling to do this because they perceive at least some elements of success in their existing program and they feel equipped to handle it. A totally new program is likely to require expertise in areas of the social sciences that teachers now in service may have had little opportunity to study. If changes are introduced gradually, the teacher has time to gain an adequate background of information as he goes. Implementing curricular change usually demands new learning materials for students, a need that can be met more easily if the change is gradual. Also, parents and pupils have expectations about what social studies should be and do; by weaving the "new" into the existing program slowly and carefully, it is possible to take those expectations into account and modify them in constructive directions.

This view, that changes should be introduced gradually by "grafting the new upon the old," is not universally accepted. As noted in Chapter 1, some critics of existing social studies programs have called for immediate revision of the total K-12 curriculum to update its content, stress processes of learning, and, in general, make it more relevant to the work of the last part of the twentieth century. In addition, some have suggested that radical curriculum change can be accomplished more effectively than piecemeal revisions, *if* adequate support for the new program is made available. Teachers may find it easier, runs the argument, to change their teaching strategies and handle new content in a totally different context than that to which they are accustomed than to change their approaches within a familiar program. The need for sequential learning also calls for total planning on a K-12 basis, it is urged, rather than for minor modifications here and there in the program.

Despite the divergent views about the comparative effectiveness of gradual vs radical change, there is general agreement that the teacher has a crucial role in achieving curriculum improvement. There is not agreement, however, about what this role should be. It is sometimes conceived narrowly, as merely implementing in the classroom the curriculum decisions that have been made "up there" or "out there." This conception reflects, perhaps unconsciously, the acceptance of "power-coercive" approaches to the change process, which Wronski describes in chapter 9. A much broader and, for this writer, a more acceptable view includes elements of the "normative-reeducative" and "rational-empirical" approaches as outlined by Wronski. Such a view recognizes the importance of the teacher's work as an implementor, but adds to his role the dimension of decision-maker. That is, the teacher *should take part in* curriculum development as a professional, with decision-making powers.

Working as a decision-maker, the social studies teacher should join with colleagues to carefully appraise the objectives of his program within the framework of his school system and examine the existing program in relation to them. If the current curriculum appears to help students advance toward those goals effectively, it may require little revision other than the normal process of updating, which the professional teacher would do anyway. The curriculum development projects of the 1960's, however, are offering viable and relevant designs and materials which can improve any social studies program and which should be considered. The central question the teacher should ask is whether one of the proposed programs, or selected segments of several of them, will help students to strive toward goals more effectively than the structure, content, and methodology of the present program. Hopefully, the teacher will *want* to explore this question and try to respond to it in effective ways. Ideally, teachers will accept decision-making responsibilities. They will seek to be agents of change and to perform their vital share in the process of education in a manner befitting the highest standards of their profession.

Previous sections of this volume deal extensively with various components of change in the social studies. Two features which characterize many of the recently proposed programs have special importance for both the implementation and the decision-making dimensions of the teacher's role. The first of these features of the innovative programs is an emphasis on the active engagement of the student in the teaching-learning process. The second is increased emphasis on areas that are significant for gaining realistic insights concerning the contemporary world.

Research clearly points to the fact that students learn more effectively if they are genuine participants in teaching-learning procedures. This has important implications for the teacher. For one who feels that his principal activity should be to spend most of the classroom hours talking (and frequently talking down) to students in order to "give" them information, this emphasis on active participation by learners demands a totally new conception of the teacher's role as an implementor of change. He must become a guide and a consultant, instead of an oracle. Induction approaches, role-playing, discovery, gaming, and other means for engaging the student in active learning have been discussed in earlier chapters. The challenge to the teacher is how to employ such procedures in an effective manner; indeed, meeting this challenge is one of the principal obligations of the teacher in introducing change. At the same time, the teacher who considers his function in the classroom to be that of a guide for learners must handle the decision-making dimension of his role in curriculum planning quite differently than the teacher whose conception of teaching is "giving" information.

With reference to new content emphases in the proposed programs, other problems arise. One is that many teachers will have to overcome their own insecurities and, in some instances, their own covert prejudicial attitudes and behaviors in order to deal effectively with some areas that were formerly neglected or even proscribed in the social studies classroom. The difficulties many teachers have experienced in developing an objective study of race relations, a realistic treatment of politics in America, and a non-ethnocentric approach to cultures other than our own are cases in point.

Another obvious problem has to do with the teacher's own informational background. The elementary school teacher is called upon to teach the "new" mathematics, sciences, humanities, and other subjects in addition to the "new" social studies. Even where some form of specialization has been developed, as in team teaching situations, the range of subjects with which the elementary teacher must deal is awesome indeed. Where is the time to learn, both in the university before entering the profession and while on the job? The secondary school teacher usually must teach materials drawn from several of the social sciences, including disciplines in which he may have had little or no college study. Even in planning and teaching an innovative course in the field in which he majored in college, the social studies teacher may encounter difficulty because many of the programs proposed by the projects have restructured the content of the various social science disciplines. Effective teaching of such experimental courses at the high school level may call for extensive inservice study or retooling. But for too many social studies teachers, opportunities for the "updating" have not been easily available.

These, then, are some of the important issues and problems that affect the teacher's role as an agent of change in the social studies. No one can question the crucial role the teacher plays in implementing change, but the challenges tc making that role a genuinely effective one are enormous.

CURRENT PROGRAMS FOR IMPLEMENTING CHANGE

An examination of current patterns of inservice education will provide some basis for exploring ways that social studies teachers can prepare themselves to meet the challenges discussed above. We shall review efforts to implement change through conventional programs conducted by local school systems and state education departments, special summer institutes and workshops, programs offered by institutions of higher learning, and activities of professional organizations.

Programs of Local School Systems and State Education Departments

Unfortunately, few data are available to give any precise accounting of how many school systems and state education departments sponsor inservice education programs intended to bring research and development outputs directly to social studies teachers. Nevertheless, scattered evidence indicates that thousands of school systems have been and/or are engaged in various kinds of inservice programs, and about half the state education departments are also sponsoring such programs during the course of an academic year. Some of these consist of from 12 to 15 sessions, while many others are only one- or two-day institutes with follow-up activities of varying extent and effectiveness.

Most of the directors of the social studies development projects have made presentations at such workshops and institutes, as have many leading social studies educators from universities. Indeed, some of them commute almost regularly from the campuses to school systems to discuss specific projects or to consult on curriculum revisions. Researchers from some projects have worked closely with neighboring school systems in their developmental work, and others have organized inservice programs which present project results to the entire staffs of school systems. Most social studies teachers have participated in one or more of these patterns of inservice study.

At the state level, those departments of education which have taken the initiative in producing programs focused on new developments in the social studies have managed to sponsor short institutes or conferences on a statewide basis. State social studies specialists have also cooperated with many inservice institutes held in school systems within their states and have brought into these programs personnel connected with the research and development projects.

It is doubtful whether one- or two-day programs, and especially a single lecture given by even the most prominent social studies educator, really have substantial impact upon conference participants. The follow-through tends to be limited and, although teachers may be enlightened to some extent in hearing about all the new and exciting things taking place in the social studies field, the pay-off is what happens after the glamour educator leaves, the workshop ends, and the teacher finds himself back in the classroom. There is little evidence that change can be genuinely implemented by such one-shot exposures.

The 12 to 15 session institute can begin to make a difference, especially if there is built in a laboratory approach calling for experimentation with new procedures themselves. Too many of these institutes, however, have tried to do too much. Often, they have featured a number of representatives from the projects, provided an extensive display of materials, and ended up as lecture sessions. Although there has been little specific evaluation of efforts to implement change through such generalized inservice sessions, pragmatic observation suggests that change does not tend to come about this way.

Summer Institutes and Workshops

Many traditional patterns of summer inservice programs for teachers continue to be sponsored by both school systems and universities. During the past decade the institutes set up under the National Defense Education Act and other federal legislation have broadened the opportunities for summer study by social studies teachers. Nevertheless, serious questions must be raised about the efficacy of many of these programs.

The variety of traditional summer programs offered by school systems and universities makes it difficult to generalize about them. It has been encouraging, however, to see that more and more school systems do provide remuneration to a few teachers for summer work and that engagement in curriculum revision is increasingly viewed as a valid learning experience for teachers. Summer programs also offer opportunities for teachers to become better acquainted with a wide variety of multi-media materials and with aspects of the new technology that are penetrating education. The year-round use of many schools as centers of learning for both students and teachers is heartening.

The NDEA institutes, covering [illegible] have given stimulus to inservice education in several ways. These institutes, now held under broader federal programs, established the precedent of paying social studies teachers for attending summer and academic-year inservice programs. Evaluation of the NDEA institutes, however, has given evidence of major accomplishments in some areas and very weak activity in other. A major criticism of many of the institutes was that generally they were formulated as lecture courses, with little attempt made to help teacher-participants relate their study at the institute to their own teaching programs in their schools. Too few institutes (22% of the 1968 group) had practicum sessions so that teachers could learn by doing. Also, there has been little, if any, provision for follow-up contacts to reinforce teachers' efforts to implement changes during the succeeding school year. There is reason to conclude that many an institute participant who did return to his home base with a desire to try out new instructional approaches had difficulty in doing so, even in his own classroom, partly because the school climate was not conducive to change and partly because the necessary materials and other resources were not available. In this circumstance, even the most energetic institute returnee could hardly be expected to become an influential catalyst for innovation among his colleagues.

In recent years, the National Science Foundation has expanded its support of summer and academic-year programs for social studies teachers. Anthropology and sociology institutes have benefited from NSF funding, and economics and political science also have entered the picture as "sciences." The NSF Cooperative College-School Secondary Training Program, as well as its summer institutes, are similar in purpose and design to the former NDEA program ,and have received the same general criticisms.

Thousands of school systems throughout the United States have received support under Title III of the Elementary and Secondary Education Act for developing summer inservice programs dealing with educational innovations and many systems have utilized funds from Title I of the same act for summer programs. Some of these have been focused on social studies curriculum and instruction.

The extent to which summer workshops have been agents for change in the social studies is certainly not clear. Many of these programs have drawn upon materials from the various social studies projects and have utilized the services of social studies project directors and staffs in bringing innovations to teachers. Many of these programs, like inservice courses operated by school systems, probably have tried to cover too much ground, have presented too many facets of change in social studies to deal with any aspect thoroughly, and have not engaged the teacher-participant actively enough in the teaching-learning processes of the program.

College and University Programs

Late afternoon and evening courses for social studies teachers continue to be fairly popular, both in specific social science disciplines and in methodology. However, questions must be raised about the utility of standard courses, usually for graduate credit, in serving as agents for change. Impressionistic observation and reporting suggest that the traditional course is largely conducted by lectures, and the teacher-students plod through the weeks of the semester more with the hope of securing three hours' credit for status advancement of some kind (a graduate degree, salary increment, a permanent credential, or tenure) than of receiving ideas and stimuli so essential to renovation of the social studies curriculum. If the teacher-student does gain fresh insights that lead him to attempt innovations in his classroom, he is likely to face the same obstacles as the summer institute returnee, as noted above.

Although a number of universities have hosted social studies research and development projects, there is not much evidence that demonstrates organized links between those projects and the inservice or graduate programs at these universities. The same absence of significant linkage was noted in universities having NDEA institutes.

In other words, research and development projects and special institutes apparently have had little impact upon the traditional pattern of inservice education offered at universities. This, of course, is a ridiculous situation. One reason for it is that the project directors at the universities and the university administrators and department chairmen do not tend to talk to one another very often. There is reason to conclude that a lack of communication, and perhaps jealousy on the part of administrators, department chairmen, and faculty members who have not been fortunate in receiving grants or other forms of federal support, are obvious obstacles to enhancing the role of the university as an agent of change through its basic educational program.

As already suggested, one may also question the extent to which teachers who are exposed to current social studies developments through university programs actually are able to apply what they have learned in their own classrooms, if their school is following a traditional curriculum and if resources for new materials are limited or nonexistent. In addition, what we know about the extent to which student teachers and interns are encouraged by their supervising teachers to draw upon new developments in social studies in their classroom teaching is not reassuring. Clearly, if the situation in the schools is such as to encourage conformity to a traditional program and to discourage efforts at innovation, one can hardly expect that institutions of higher learning will be effective agents in implementing change in the social studies even if they have up-dated their own offerings.

Activities of Professional Organizations

A number of professional organizations and educational groups are deeply concerned with implementing change in the social studies through various programs for teachers. The National Council for the Social

Studies has informed teachers about many new developments in the social studies through its monthly journal, *Social Education*, its yearbooks, and its other publications. It has also featured reports of social studies research and development projects at its annual meetings throughout the 1960's. Programs and publications sponsored by the National Association of Secondary School Principals, the Association for Supervision and Curriculum Development, the Department of Elementary School Principals, the American Historical Association, the North Central Association of Secondary Schools and Colleges, the Foreign Policy Association, and the American Association of Colleges for Teacher Education have given some emphasis to innovative work in the social studies. State, local, and regional social studies councils have also stressed new curriculum proposals and instructional strategies in their meetings and publications.

The Impact of Current Programs

Clearly, considerable effort is being made to encourage innovation in the social studies through programs such as those described above. And yet, when one reviews these approaches to the process of implementing change in the social studies, the disturbing feeling lingers that what is being attempted is insufficient in both quality and quantity, that traditional formats are being employed without examining their potential through an analysis of change strategies such as that presented by Wronski in chapter 9. Too often, the current approaches to teacher education are didactic and expository, failing to reflect the more innovative developments in the field. Too frequently, inservice programs have reflected concepts of the change process that stem from the "power-coercive" type of approach. Too infrequently have teachers who have had the advantage of in-depth exposure to new developments in the social studies been given opportunities to act as decision-makers or to serve as multiplier agents in the dissemination phase of the change process. Those relatively few institutes or programs that have provided participatory experience with the new developments have reached only a small minority of teachers. Moreover, many of the innovative materials coming from the experimental projects have not been developed in ways that facilitate their implementation in typical classrooms. What, then, can be done to assist teachers in being true agents of change?

PROMISING APPROACHES FOR ENHANCING THE TEACHER'S ROLE AS CHANGE AGENT

One difficulty in discussing innovations in any area of education is that it is virtually impossible to identify all of the new approaches that are being tried. Much is going on that cannot be discovered by the usual processes of surveying the professional literature and inquiring among professional associates. Nevertheless, it is possible to establish some general categories of promising innovative efforts in the social studies in the area of teacher education and participation. These include plans to facilitate teacher involvement in the change process within the local school, new patterns of cooperation between school systems and institutions of higher learning, the new thrust of state departments of education, the development of educational service centers serving several cooperating school districts, the concept of "peer teaching," and the potential of media, particularly videotapes and films, for inservice education. Although these approaches will be discussed separately, by category, in the following pages, in practice they should be used so as to complement and supplement one another.

Facilitating Teacher Involvement in Innovation in the Local School

There is probably general agreement as to the necessity for involvement of teachers in any successful program of innovation. What is meant by involvement and how it can be achieved, however, are questions that need consideration.

Some may contend that when a change is made in the curriculum, teachers will automatically become involved. If a new economics program is to be introduced at the primary level or an innovative history sequence is to be used at the high school level, the teacher has to perform such tasks as examining the new materials, making plans for their use in the classroom, and perhaps setting up a different teaching schedule. This is involvement, is it not?

It is to some degree. However, true involvement means much more than an inert or passive response to a social studies chairman or curriculum specialist who is firmly requesting the social studies staff to "bring on the new" (one version of the "power-coercive" approach).

Effective involvement demands participation in the various stages of rethinking and replanning the program, such as: careful appraisal of the current curriculum by all social studies teachers on the staff; in-depth appraisal of areas where change may be required within the context of the program goals; careful assessment of innovative social studies programs that can be integrated into areas of the curriculum in need of change, including maximum familiarity with the materials and teaching strategies associated with the desired new programs; and full exchange of ideas and information among members of the staff during the process of revising the curriculum. In short, all the teachers should be active partners in the process of planning for and implementing change.

It must be recognized, however, that existing conditions in many school systems do not facilitate the active partnership of all teachers in curriculum development. It is true that some teachers may be determinedly opposed to change, claiming that their courses are excellent, their materials quite suitable for student learning, and their style of teaching (usually an expository lecture) unchallengeable. They might refuse to be partners in change efforts under any circumstances. But many more who might have interest in helping to plan and implement a new program are likely to avoid more than a superficial involvement for one or both of the following reasons: insecurity arising from a feeling of inadequate background; and time pressures resulting from conscientious performance of their "normal" teaching load. These are situations about which something can be done, if leadership personnel in the school system make resources available and plan creatively for effective use of the resources.

A word about resources is in order at this point. There is increasing recognition among those who are studying the change process in education that (to paraphrase Jefferson's comment about ignorance and freedom), if the leaders of a school system expect to achieve teacher involvement in innovation without a substantial financial investment, they expect "what never was and never will be." Too long, there has been this expectation. As Sanders points out in chapter 5, in too many school systems inservice programs have been nonexistent or have been conducted on a shoestring. This situation is a major reason for the relative ineffectiveness of conventional inservice activities that was noted above. Early in the 1960's the National Education Association's National

Committee of the Project on Instruction addressed itself to the problem. The following recommendation, which still awaits implementation in a great majority of school systems, was the result.

School systems should allocate an appropriate proportion of their annual operating budgets — not less than 1 per cent — for the support of research, experimentation, and innovation.[1]

One may question the adequacy of the one percent figure suggested here, if real progress in up-dating school programs is to be achieved. Sanders' proposal in chapter 5, that three to five percent of the school budget be set aside for this purpose, seems a more realistic assessment of what will be needed to implement the remainder of the recommendation of the Project on Instruction:

Teachers need time within the regular school schedule to participate in curriculum planning, research, evaluation, and other activities to improve the instructional program. A thought-provoking, creative approach to difficult instructional problems is not something to be undertaken by a half dozen tired teachers at four o'clock on Friday afternoon, however dedicated the teachers may be. It should be possible for members of a school staff to spend part of their regular working hours on such activities.[2]

Thus time is seen as a key element in facilitating teacher involvement in innovation — time for teachers to study, examine new programs and materials, meet with colleagues and curriculum specialists to discuss and plan, and to work independently or in small groups to develop materials. The number of hours in the day cannot be increased, so the way those hours are used must be adjusted to provide opportunities for such activities. Some school systems, even without massive funds for program development, have found ways of releasing teachers from a portion of their regular school schedule to participate in inservice study and curriculum planning.[3]

One plan that has been used in a number of communities is to suspend classroom work one afternoon each week (or month) for a period of time, sending students home, so that teachers are freed for study sessions and program development activities. This plan has been criticized by some as interfering with pupil progress. It is defended by others on the grounds that the resultant improvement in the school program will more than compensate for the slightly reduced time that students are exposed to classroom instruction. Defenders of the plan also point out that students can be helped, by advance planning, to use their "released time" in independent study projects of various sorts.

A few school systems have employed additional personnel, regularly certificated teachers who are variously known as "resource," "staff," or "auxiliary" teachers. These teachers are assigned in advance to handle part or all of selected regular teachers' schedules for a block of time or for a number of days spaced through the school year. They plan with the regular classroom teacher for the work students are to carry on, so that the pupils' learning can proceed without interruption. If the auxiliary teacher is to work with a class for a block of time, he assumes full responsibility for planning and conducting the unit of study, after consulting with the regular teacher to ensure that there will be continuity for the learner within the context of the year's work. The released teachers thus are given time, within their regular schedule, for program development.

The rapid increase in the use of paraprofessional staff, combined with team teaching arrangements, offers other possibilities for providing time for teachers to engage in inservice study and curriculum planning within the regular school day. In some cases, the daily schedule of members of an instructional team includes one or more common periods for planning, preparation of materials, and other aspects of program development.

Ultimately, it is urged by some, all teachers should be employed for an eleven-month year, with every teacher taking part in some type of inservice study during the eleventh month of paid service. For teachers who feel a need to enrich their own backgrounds in the social sciences, appropriate study opportunities could be provided. The uninterrupted block of time could be used by others for program development activities. Ideally, this plan for a paid "inservice month" would be combined with the provision of some time during the school year for continuing assessment of innovations that are being implemented, with feedback for planning next steps.

In addition to time, teachers must have access to materials and equipment. When engaged in developing materials, they will need clerical assistance. The costs of these items must be included in budgeting for the resources required in any plan for facilitating teacher involvement in innovation.

Patterns of University-School Cooperation

Before the 1960's, efforts of higher education to implement change in the schools were focused largely on the preservice preparation of future teachers, with special emphasis on the student teaching experience. (A notable exception was the university-based "school study council" type of program which developed in a few places across the nation.) Innovations could get into the pipeline through the emphasis on preservice programs, but only to a limited extent. As funding for research and development became available to universities from public and private agencies, however, the early 1960's witnessed a small but growing number of social studies educators in colleges and universities working directly with teachers in service, to make them partners in research and development efforts and to introduce the products of such efforts into the schools. By the end of the 1960's, one could cite dozens of cases of university-based programs and projects that involved working with social studies teachers in elementary and secondary schools. A few selected examples will illustrate.

The Harvard Social Studies Project, dealing with study of controversial issues, has involved hundreds of teachers in the development of materials and in pilot testing this important program. The Lincoln Filene Center, at Tufts University, has made a practice of involving teachers in the development of various programs and then has brought them back in subsequent years for feed-back sessions and procedures for revision of materials and teaching strategies. At the University of Minnesota Project Social Studies Curriculum Center, teachers who were to field test the Center's materials worked with the project staff and consultants in the initial writing of units and then assisted in revising the materials. Many teachers were involved in developing the program on due process of law, based at UCLA. Washington University has established a social studies resource center for teachers in the Greater St. Louis area. One of the center's activities has been to facilitate the analysis by social studies staffs in local schools of innovative materials which they might be considering for use in their own programs.

In these examples, and in many others that could be cited if space permitted, selected teachers have assisted social scientists and social studies specialists in higher education institutions in the process of research and development and in pilot testing of the programs in the schools. In many cases, the teachers have also worked on a continuous basis with universities in improving the outputs of the projects and in helping their fellow teachers in their own schools to move into innovative programs. Early in the 1960's, there was no preconceived design along these lines; this *modus operandi* evolved out of the requirements of the situation. By the end of the 1960's, the connective links between university and school system provided a broad pattern for the implementation of change in many places across the nation. There is every likelihood that the application of this general pattern will be multiplied many times in the 1970's.

State Department of Education Activities

A potentially important step in advancing innovation in social studies programs came in the 1960's with the appointment of social studies curriculum specialists in the vast majority of state departments of education. This expansion was made possible largely by funding under the National Defense Education Act. Today, the state education departments realize that such personnel are essential in meeting the needs of school systems in their states. Some departments have specialists in various areas of the social studies. These social studies educators have formed their own organization, the Council of State Social Studies Specialists, a clear sign of broadening a major resource for change.

The specialists contribute to the change process in various ways. They travel throughout their states to assist individual school systems in planning for and implementing change. They convene conferences on a regional or statewide basis throughout the calendar year and sponsor programs focusing on general or specific areas of revising the social studies curriculum. In some cases, they provide a clearinghouse service by publicizing significant conferences that are sponsored by other educational agencies in the state and by recommending appropriate consultants to school systems that are engaged in curriculum work. They may also provide modest resource centers at their offices in state capitals for use by social studies teachers and curriculum committees. Their prime focus is on the teacher as an agent of change. Hopefully, their activity and service will continue to expand in the 1970's.

Educational Service Centers

One of the major thrusts of programs established with federal funding under Title III of the Elementary and Secondary Education Act has been the development of educational service centers which were operated cooperatively by a number of participating school systems in a local area. It was anticipated that the cooperating school systems would take over the financing of the center when federal funding was discontinued, usually after a three-year period. (At the time this is written, there are discouraging indications that the takeover of financing by the local systems is unlikely to occur in many cases.) Although no comprehensive evaluation of the educational service center approach is available as yet, random observations suggest that it provides a useful pattern for future efforts to improve inservice growth opportunities for teachers so that they can take a central role in the change process.

Each center has determined its own operational design and has selected priority areas in terms of the expressed needs and interests of the cooperating school systems. In a number of cases, social studies curriculum development was the original focus of the center or was quickly identified as one of the programs to be emphasized. The potential of such centers for enhancing the teacher's role in planning for and introducing innovations in social studies can be indicated by a generalized account of typical activities that have been conducted under their auspices. Three main types of activities can be identified.

Many, probably most, of the centers have organized one or more forms of inservice study programs for teachers of the cooperating school systems. While some general lectures by visiting social studies specialists have been offered by many centers, to provide teachers with an orientation to overall trends in the field, most of the inservice study activities have been more sharply focused.

Single purpose workshops of one or two sessions have been used to train participants in the production and use of selected types of audio-visual materials. Teachers have learned to make their own transparencies, audiotapes, photocopied slides, laminated graphics, and even motion pictures. The laboratory approach utilized in such workshops enables teachers to become comfortable in using a variety of media and in supervising student production of such materials.

Micro-teaching sessions, focused on selected aspects of instructional strategies, have characterized some of the inservice programs conducted by the centers. The micro-sessions are recorded via videotape and then analyzed in subsequent discussions. Thus participants study patterns of verbal interaction in the classroom, for example, with a view to improving their own interaction with students. Or, micro-teaching is used to enable participants to refine their use of questions in order to stimulate various levels of thinking by students, as discussed in chapter 5.

A third form of inservice study provided by many centers has given participants the opportunity to enrich their social science backgrounds through semester-length courses dealing with such areas as cultural anthropology, African studies, or comparative economic systems. Frequently, the courses to be offered have been determined by circularizing the teachers of school systems served by the center, in order to identify their needs and interests. In some cases, such courses have been arranged cooperatively by the center and a college or university in the region, have been taught at the institution of higher learning, and have carried graduate credit for participants.

A second type of activity sponsored by a number of educational service centers has been the field testing of experimental social studies programs. The center's role has been that of facilitator in the piloting process. It disseminates information about new programs that are available for classroom trial and identifies school systems that wish to test a particular set of materials. When the pilot classes are selected, the center arranges for the teachers who are to utilize the materials to attend orientation sessions where they can familiarize themselves with the program's goals, approaches, and content, and with the recommended instructional procedures. At intervals during the field-test period, the center may arrange feedback sessions in which the teachers exchange their experiences to date and their ideas about next steps. In addition, the center may arrange for visits to the pilot classes by other teachers and administrators who wish to observe the program in operation. The center staff also assists the piloting schools in evaluating the program, with a view to helping other schools decide whether or not it may be appropriate for adoption or adaptation in their particular situations.

The development of curriculum materials by social studies teachers from the cooperating school systems is a third major activity that has been sponsored by educational service centers. Before such an undertaking begins, the center probably conducts a problem census to determine what aspect(s) of their program the social studies teachers consider to need attention most urgently. The curriculum development effort is structured accordingly, with the center staff serving as a secretariat for teacher committees and arranging for outside consultant help as it is needed.

This account of activities, brief and generalized as it is, suggests a number of advantages that may be realized through an educational service center. By pooling resources in supporting such a center, the school systems of a local area can conduct richer programs of curriculum development and inservice education for teachers than they could provide individually. The center's program can be focused directly on the needs of the cooperating school systems and can be conducted flexibly, changing as the needs of the schools shift. The center can provide a convenient channel for arranging joint programs between the several school districts and institutions of higher learning in a geographic area. Finally, and of paramount importance, the educational service center can promote broad involvement of teachers in curriculum development activities. It can provide opportunities for them to interact not only with colleagues from their own school district but from neighboring school systems as well. None of these advantages will be gained automatically by the formal creation of an educational service center, of course, but the center format can facilitate their achievement.

"Peer Teaching"

Even if it were desirable for school systems to depend exclusively on outside consultants to handle inservice activities, it is the fact that there are not enough curriculum specialists and social studies experts to work directly with the thousands of schools in the United States that are seeking to revise and update their social studies curriculums. A new resource must be found to accelerate the process of change, and that resource can well be teachers who want to take the initiative in implementing change in their own school systems and who have (or can develop) leadership competencies. Such teacher-leaders, with appropriate assistance from outside consultants, can become effective change agents through a plan sometimes known as "peer teaching."

One general pattern for "peer teaching" is as follows. By various means, a few outstanding teachers in each school system are identified. These teachers are ones who not only are highly competent in their profession but also have demonstrated a facility for working effectively with their fellow teachers and have a genuine interest in bringing about curriculum improvement. With encouragement and financial support from the school administration, these teachers can begin to explore changes that may be needed in the school's social studies program, take part in sessions at which innovations in the social studies are examined, and become associated with some specialists in their field. Through such activities as these, the teacher-leaders can become familiar with the outputs of those projects and programs that might be useful in their own school system. They can also develop expertise in techniques for bringing about change.

Then the process of peer teaching begins. The teacher-leaders, with administrative support, meet with their fellow teachers to discuss changes that may be needed to make the school's social studies curriculum more effective. They lead their colleagues in examining the various programs that are available and in discussing how these programs might relate to the school's need for change. Particularly important is the actual teaching in the school of the materials that have been selected for piloting. This may be done first by the teacher-leaders and then by other social studies teachers. In group sessions, feedback from the pilot teaching of the innovative materials is discussed. Difficult problems that may have arisen are identified and possible solutions to these problems are explored in the analytic sessions.

Peer-teaching may also be employed to encourage changes in instructional strategies within the context of an already adopted program. For example, one local curriculum committee decided to work immediately toward wider use of multi-media materials in the existing social studies program while broader aspects of curriculum development were under consideration. Some members of the committee were released from their regular teaching assignments for two weeks, during which they visited every elementary school in the system to teach demonstration lessons utilizing a multi-media approach. The demonstrations were followed by discussions among the teacher-observers.

There is no single approach to this process of peer-teaching, but there are some basic requirements for it to be effective. If it is to be successful, there must be administrative support throughout for the teacher-leaders and those who are to serve in this capacity must be genuinely willing to do so. There must also be provision for these teachers to become well informed about the products of social studies research and development projects, a well-organized plan for peer-teaching in the school, demonstration teaching of the new materials in pilot classes, and group analysis of what actually happens when the "new" is introduced into the classroom. Experience by the Lincoln

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Filene Center in several school systems and in work with the Rhode Island and Pennsylvania Departments of Education along the above lines, as well as examples from local systems such as the one cited, suggest that this approach may well provide a significant break-through in advancing the role of the teacher as a key agent of change. Preliminary evidence from a number of Title III projects in which teacher-leaders have taken a major role in inservice programs seems to confirm the usefulness of the peer teaching approach.[4] A number of the major social studies curriculum projects have also employed some form of peer teaching in their dissemination efforts and seem to have found the strategy to be a useful one.[5]

Using the "New" Media in the Change Process

The late 1960's have seen the rapid development and widespread use of a variety of communications media that can be valuable to social studies teachers as they prepare to participate in innovative programs. This trend seems almost certain to accelerate in the years ahead, as equipment for instructional television, improved videotape recorders, and other hardware become available at lower prices and as increasing amounts of pertinent software (films, videotapes, kinescopes, audiotapes, etc.) are produced. While only selected examples of the new media will be considered here, it should be noted that others are already available, such as tele-writer and tele-lecture equipment, and that still other types are under development. The impact of such media on efforts at innovation has at least three aspects. One is their potential for bringing pertinent social science information to teachers. A second is their usefulness as vehicles for disseminating information about the focus, structure, content, and recommended teaching procedures of innovative programs. The third is their potential as tools for teachers to use in analyzing their own application of new instructional strategies.

Readers will recall the courses in economics and political science that were presented via the televised "Continental Classroom" in recent years and are undoubtedly familiar with more localized broadcasting of college courses in various academic fields, including the social sciences. In addition, some educational agencies have sponsored television series designed specifically for teacher education. One example is the series on "Education and Race Relations," consisting of 28 programs of 45 minutes each, which was produced by the Massachusetts Department of Education. In effect, this series is a "course in a can," which brings to viewers discussions by experts of the main dimensions of race relations as well as suggested methodology for teaching about this critical area in social studies classrooms. It has been used, either on videotape or kinescope, as the principal study material for courses for teachers in more than 100 colleges and universities. It represents a format that has great potential for disseminating information about other important areas of the social studies and approaches for handling them in the classroom.

A number of the major social studies curriculum projects have prepared or are in the process of making videotapes or films to demonstrate recommended procedures for teaching their materials. Among them are the Carnegie-Mellon Social Studies Project, the High School Geography Project, the Anthropology Curriculum Study Project, the project in Sociological Resources for Secondary Schools, and the Taba Social Studies Curriculum Project. Some of these are available through commercial sources, others are distributed by the projects themselves. Hundreds of school systems, as well as departments and colleges of education, also have prepared videotapes or kinescopes showing classroom use of innovative teaching strategies. These materials can be studied and analyzed by teachers, as they prepare themselves to introduce new materials and procedures.

As tools for self-analysis by teachers, both videotapes and audiotapes have great potential. They enable the teacher to see and hear exactly what occurred during a classroom session in which he was using innovative materials and procedures. He can examine the record to identify his own areas of strength as well as aspects in which he could improve. Both experienced teachers and neophytes have found it profitable to engage in micro-teaching exercises, such as those referred to earlier in this chapter. In addition, by recording student reactions to new materials and procedures, these tools make possible a closer analysis of the new program's impact than can be made during actual instruction when the teacher must focus attention on other aspects of the classroom situation.

Although today's communications media can be effective and stimulating devices for helping teachers to relate social studies innovations to their own programs, media *per se* cannot be considered a substitute for the human factor in the change process. However, such media can be supportive of innovative efforts and, indeed, can bring messages from experts to teachers which no other approach can supply. Thus, in the process of change, the use of the "new" media should be integrated into a range of approaches for implementing improvements in social studies programs.

CONCLUSION

Is the assessment of today's conventional programs for engaging teachers in innovation, as reported in the early part of this chapter, unduly harsh and pessimistic? The writer thinks not. Even if it were, the problems that have been pointed out represent obstacles that must be dealt with if teachers are to achieve their proper role as professional decision-makers and implementors in curriculum change. The approaches for enabling teachers to perform this role which are recommended in the last part of the chapter are not of the ivory tower variety. Their utility has been demonstrated, although on a mini-scale in most cases. There is strong reason to anticipate that major improvement in social studies programs can be achieved if these approaches are widely applied. In the process, clues to other useful forms of inservice experience that have not yet been dreamed of undoubtedly will develop.

This chapter concludes on the same note with which it began and in doing so highlights a theme that has run throughout the volume. The social studies teacher is the pivotal element in effecting innovations that will help young people gain the values, skills, and understandings they need in order to relate constructively to their social world. The search for ways to enhance the teacher's role in curriculum change deserves a high priority.

FOOTNOTES

[1] National Education Association, Project on the Instructional Program of the Public Schools. *Schools for the Sixties, A Report*. New York: McGraw-Hill Book Co., 1963. p. 22.

[2] *Ibid.*

[3] For a fuller discussion of plans for inservice education, see:

"Inservice Education." *PACEreport*, April 1968. (Lexington, Ky.: University of Kentucky Program on Educational Change.); and

Meil, Alice, "New Patterns of In-Service Education of Elementary Teachers." *The New Elementary School.* Washington, D. C.: Association for Supervision and

Curriculum Development and the Department of Elementary School Principals, departments of the National Education Association, 1968. pp. 68-95.

[4] *PACEreport, op. cit.*

[5] For brief descriptions of the teacher education programs of some of the major projects, see: *SSEC Newsletter* No. 6; November 1968. (Boulder, Colo.: Social Science Education Consortium.)

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